Bruhat Bangalore Mahanagara Palike

REQUEST FOR PROPOSALS

Consultancy services for preparation of Comprehensive Bengaluru city road infrastructure plan to decongest traffic and to prepare comprehensive traffic management plan for proposal of vehicular tunnel / Grade separator / Road widening in selected corridors

Executive Engineer
Road Infrastructure (TEC) Division
Bruhat Bangalore Mahanagara Palike

CONTENTS

SECTION	DESCRIPTION
Section I	Letter of Invitation
Section II	Information to Consultants (ITC)
Data Sheet	Information to Consultants
Section III	Technical Proposal – Standard Forms
Section IV	Financial Proposal – Standard Forms
Section V	Terms of Reference
Section VI	Contract for Consultant's Services

BRUHAT BANGALORE MAHANAGARA PALIKE

Office of The Executive Engineer
Road Infrastructure (TEC)
N.R.Square, Bangalore – 02
Dated: 30-09-2023

INVITATION FOR BIDS

SHORT TERM TENDER NOTIFICATION

(Through e-procurement only)

The Executive Engineer (Road Infrastructure – TEC) invites Bids on behalf of the Commissioner Bruhat Bangalore Mahanagara Palike from reputed **Consultants for the services** given in the table given below.

Sl. No	Name of the work	EMD, Rs.	Duration	Tender processing fee (Rupees)
1	Consultancy services for preparation of Comprehensive Bengaluru city road infrastructure plan to decongest traffic and to prepare comprehensive traffic management plan for proposal of vehicular tunnel / Grade separator / Road widening in selected corridors	5.0 Lakhs	2 months	As per e-procurement portal

1. The RFP document and tender process **is open for only the shortlisted consultants listed in kppp portal as per the earlier EOI submission and result of evaluation process**
2. Documents may be downloaded from Government of Karnataka e-Procurement website https://kppp.karnataka.gov.in/#/portal/portal-home under login for contractors. After login to contractors, please scroll down to the right side bottom to see List of Tenders, please click there to find the details of IFT and download copy of the tender. The tender can be downloaded from the portal as per prescribed date and time published in the portal. Only interested agencies / firms who wish to participate should remit online non-refundable transaction fee for tender after registering in the Portal.
3. Tenders must be electronically submitted (online through internet) within the date and time published in e-procurement portal. First covers of the tender will be opened at prescribed time and date in the e-procurement portal, in the presence of the bidders who wish to attend at the Office of the Executive Engineer, Road Infrastructure (TEC) division, N R Square, Bangalore – 560 002.

Calendar of events:

- Date of pre-bid meeting 12-10-2023 at 4.00 p.m. in the office of Chief Engineer, Road infrastructure, No.405, 4th floor, Annex Building 3 N R Square, Bangalore
- Last Date for uploading the Filled Tender Document 19-10-2023 up to 4.00 p.m
- Date of opening of Technical bid 21-10-2023 at 4.30 p.m.
- Date of Opening of Financial Bid is after approval to Technical bid.

-Sd/-
Executive Engineer

Road Infrastructure - TEC Division
Bruhat Bangalore Mahanagara Palike

Copy Submitted to:

1. The Chief Commissioner for kind information
2. Special Commissioner (Projects) / (Finance) for kind information.
3. Engineer-in-Chief for kind information
4. Chief Engineer (Road Infrastructure / Projects-1 / Projects-2 / East / West / South / RR Nagar / Dasara Halli / Yelahanka / Bommanahalli / Mahadevapura / SWD / SWM / BSUP) for kind information.
5. Superintending Engineer (Road Infrastructure / Projects-1 / Projects-2 / East / West / South / RR Nagar / Dasara Halli / Yelahanka / Bommanahalli / Mahadevapura / SWD / SWM / BSUP) for kind information.
6. The District tender bulletin officer, Bangalore Urban district and Deputy Commissioner, Bangalore Urban for kind information with a request to publish in the District Tender Bulletin.
7. CAO/ Chief Auditor for kind information.
8. I.T Advisor with a request to publish in the BBMP website.
9. All Executive Engineers with request to publish the same in the display / notice boards.
10. Audit Officer (Road Infrastructure) / Cashier for information.
13. Public Relation Officer, BBMP with a request to take need full action to publish the same in any two leading daily news papers (in Kannada and English).
14. Notice Board.
15. Office Copy.

Executive Engineer
Road Infrastructure - TEC Division
Bruhat Bangalore Mahanagara Palike

DISCLAIMER

This RFP is not an agreement and is neither an offer nor invitation by the Client to the prospective Applicants or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in the formulation of their Proposals pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by the BBMP in relation to the Consultancy. Such assumptions, assessments and statements do not purport to contain all the information that each Applicant may require. This RFP may not be appropriate for all persons, and it is not possible for the BBMP, its employees or advisers to consider the objectives, technical expertise and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in this RFP, may not be complete, accurate, adequate or correct. Each Applicant should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments and information contained in this RFP and obtain independent advice from appropriate sources.

BBMP, its employees, consultants and advisers make no representation or warranty and shall have no liability to any person including any Applicant under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, reliability or completeness of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way in this Selection Process.

The BBMP also accepts no liability of any nature whether resulting from negligence or otherwise however caused arising from reliance of any Applicant upon the statements contained in this RFP.The BBMP may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumption contained in this RFP.

The Applicant shall bear all its costs associated with or relating to the preparation and submission of its Proposal including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the BBMP or any other costs incurred in connection with or relating to its Proposal. All such costs and expenses will remain with the Applicant and the BBMP shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by an Applicant in preparation or submission of the Proposal, regardless of the conduct or outcome of the Selection Process

The issue of this RFP does not imply that the BBMP is bound to select an Applicant or to appoint the Selected Applicant, as the case may be, for the Consultancy and the BBMP reserves the right to reject all or any of the Proposals without assigning any reasons whatsoever.

SECTION 1. LETTER OF INVITATION

Dated:

Bangalore

Dear Sir,

Adverting to the EOI submission, you have been shortlisted for RFP stage of submission

Bruhat Bengaluru Mahanagara Palike (BBMP)is inviting this RFP to appoint a consultant to prepare a comprehensive traffic management plan focused on quick, implementable interventions on High Density Corridors / major arterials and at critical junctions to decongest the traffic and improve mobility on these major corridors of Bengaluru city. These interventions must be aimed at proposing plans that can be implemented in short, medium and long term and could provide relief to commuters. The focus of these plans would be on reducing travel time for commuters by resolving conflicts at junctions and other bottleneck locations, with particular focus on increasing speeds of public buses on roads. The plans shall lay emphasis on improved safety of pedestrians and improved accessibility to public transport through walk and cycling.

Now, BBMP intends to select a consultant for "Consultancy services for preparation of Comprehensive Bengaluru city road infrastructure plan to decongest traffic and to prepare comprehensive traffic management plan for proposal of vehicular tunnel / Grade separator / Road widening in selected corridor"

The objective of the services is to prepare a comprehensive feasibility report in below stages

PHASE 1 – Preparation of Traffic Management Plans with Concept Level drawings to decongest major corridors and junctions

PHASE 2 – Detailed Design of selected proposals along with Costings and BoQs and preparation of Tender Documents.

1. The RFP can be purchased by all the eligible consultants:
2. A Consultant will be selected under Quality-and Cost-Based Selection (QCBS) and procedures described in this RFP.
4. The RFP includes the following documents:

Section 1 - Letter of Invitation
Section 2 - Information to Consultants
Section 3 - Technical Proposal - Standard Forms
Section 4 - Financial Proposal - Standard Forms
Section 5 - Terms of Reference
Section 6 - Standard Form of Contract.

5. Deleted

Yours sincerely,

Executive Engineer.,

Traffic Engineering Cell.,

BBMP., N.R.Square., Bangalore-560002.,

SECTION 2. INFORMATION TO CONSULTANTS

1. INTRODUCTION

1.1 The Client named in the "Data Sheet" will select a firm among those listed in the Letter of Invitation, in accordance with the method of selection indicated in the Data Sheet.

1.2 The consultants are invited to submit a Technical Proposal and a Financial Proposal, as specified in the Data Sheet (the Proposal) for consulting services required for the Assignment named in the Data Sheet. The Proposal will be the basis for contract negotiations and ultimately for a signed contract with the selected Consultant.

1.3 The Assignment shall be implemented in accordance with the phasing indicated in the Data Sheet. When the Assignment includes several phases, the performance of the consultant under each phase must be to the client's satisfaction before work begins on the next phase.

1.4 The Consultants must familiarize themselves with local conditions and take them into account in preparing their Proposals. To obtain first-hand information on the Assignment and on the local conditions, consultants are encouraged to pay a visit to the Client before submitting a Proposal, and to attend a pre-proposal conference if one is specified in the Data Sheet. Attending the pre-proposal conference is optional. The Consultant's representative should contact the officials named in the Data Sheet to arrange for their visit or to obtain additional information on the pre-proposal conference. Consultants should ensure that these officials are advised of the visit in adequate time to allow them to make appropriate arrangements.

1.5 The Client will provide the inputs specified in the Data Sheet, assist the firm in obtaining licenses and permits needed to carry out the services, and make available relevant project data and reports.

1.6 Please note that (i) the costs of preparing the proposal and of negotiating the contract, including a visit to the Client, are not reimbursable as a direct cost of the Assignment; and (ii) the Client is not bound to accept any of the Proposals submitted.

1.7 Government of Karnataka (GOK) expects consultants to provide professional, objective, and impartial advice and at all times hold the Client's interests paramount, without any consideration for future work, and strictly avoid conflicts with other assignments or their own corporate interests. Consultants shall not be hired for any assignment that would be in conflict with their prior or current obligations to other clients, or that may place them in a position of not being able to carry out the assignment in the best interest of the Client.

1.7.1 Without limitation on the generality of this rule, consultants shall not be hired under the circumstances set forth below:

(a) A firm which has been engaged by the Client to provide goods or works for a project, and any of their affiliates, shall be disqualified from providing consulting services for the same project. Conversely, firms hired to provide consulting services for the preparation or implementation of a project, and any of their affiliates, shall be disqualified from subsequently providing goods or works or services related to the initial assignment (other than a continuation of the firm's earlier consulting services) for the same project.

(b) This Information to Consultants section shall not be modified. Any necessary changes, to address specific project issues, shall be introduced

only through the Data Sheet (e.g., by adding new clauses). Likewise, modifications to the standard Form of Contract should be made only by including clauses outlining the Special Conditions and not by introducing changes in the wording of the General Conditions.

(c) Consultants or any of their affiliates shall not be hired for any assignment which, by its nature, may be in conflict with another assignment of the consultants.

1.7.2 As pointed out in para. 1.7.1 (a) above, consultants may be hired for downstream work, when continuity is essential, in which case this possibility shall be indicated in the Data Sheet and the factors used for the selection of the consultant should take the likelihood of continuation into account. It will be the exclusive decision of the Client whether or not to have the downstream assignment carried out, and if it is carried out, which consultant will be hired for the purpose.

1.8 It is GOK's policy to require that consultants observe the highest standard of ethics during the execution of such contracts. In pursuance of this policy, the GOK:

(a) Defines, for the purposes of this provision, the terms set forth below as follows:

(i) "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the selection process or in contract execution; and

(ii) "fraudulent practice" means a misrepresentation of facts in order to influence a selection process or the execution of a contract to the detriment of GOK, and includes collusive practices among consultants (prior to or after submission of proposals) designed to establish prices at artificial, noncompetitive levels and to deprive GOK of the benefits of free and open competition.

(b) will reject a proposal for award if it determines that the firm recommended for award has engaged in corrupt or fraudulent activities in competing for the contract in question;

(d) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded GOK-financed contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a GOK-financed contract; and

(e) will have the right to require that, GOK to inspect consultant's accounts and records relating to the performance of the contract and to have them audited by auditors appointed by GOK.

1.9 Consultants shall not be under a declaration of ineligibility for corrupt and fraudulent practices issued by GOK in accordance with the above sub para 1.8 (d).

1.10 Consultants shall be aware of the provisions on fraud and corruption stated in the standard contract under the clauses indicated in the Data Sheet.

2. CLARIFICATION AND AMENDMENT OF RFP DOCUMENTS

2.1 Consultants may request a clarification of any item of the RFP document up to the number of days indicated in the Data Sheet before the Proposal submission date. Any request for clarification must be sent in writing by paper mail, cable, telex, facsimile, or electronic mail to the Client's address indicated in the Data Sheet. The Client will respond by cable, telex, facsimile, or electronic mail to such requests and will send copies of the response (including an explanation of the query but without identifying the source of inquiry) to all invited consultants who intend to submit proposals.

2.2 At any time before the submission of Proposals, the Client may, for any reason, whether at its own initiative or in response to a clarification requested by an invited firm, modify the RFP documents by amendment. Any amendment shall be issued in writing through addenda. Addenda shall be sent by mail, cable, telex, facsimile, or electronic mail to all invited consultants and will be binding on them. The Client may at its discretion extend the deadline for the submission of Proposals.

3. PREPARATION OF PROPOSAL

3.1 Consultants are requested to submit a Proposal (Para 1.2) written in the language(s) specified in the Data Sheet.

Technical Proposal

3.2 In preparing the Technical Proposal, consultants are expected to examine the documents comprising this RFP in detail. Material deficiencies in providing the information requested may result in rejection of a Proposal.

3.3 While preparing the Technical Proposal, consultants must give particular attention to the following:

(i) For assignments on a staff-time basis, the estimated number of key professional staff-months is given in the Data Sheet. The proposal shall, however, be based on the number of key professional staff-months estimated by the firm.

(ii) It is desirable that the majority of the key professional staff proposed be permanent employees of the firm or has an extended and stable working relation with it.

(iii) Proposed key professional staff must minimum have the experience indicated in the Data Sheet.

(iv) Alternative key professional staff shall not be proposed, and only one curriculum vitae (CV) may be submitted for each position.

(v) Reports to be issued by the consultants as part of this assignment must be in the language(s) specified in the Data Sheet. It is desirable that the firm's personnel have a working knowledge of the Client's official language.

3.4 The Technical Proposal should provide the following information using the attached Standard Forms (Section 3):

(i) A brief description of the consultant's organization and an outline of recent experience on assignments (Section 3B) of a similar nature. For each assignment, the

outline should indicate, inter alia, the profiles and names of the staff provided, duration of the assignment, contract amount, and firm's involvement.

(ii) Any comments or suggestions on the Terms of Reference and on the data, a list of services, and facilities to be provided by the Client (Section 3C).

(iii) A description of the methodology and work plan for performing the assignment (Section 3D).

(iv) The list of the proposed staff team by speciality, the tasks that would be assigned to each staff team member, and their timing (Section 3E).

(v) CVs recently signed by the proposed key professional staff and the authorized representative submitting the proposal (Section 3F). Key information should include number of years working for the firm/entity, and degree of responsibility held in various assignments during the last ten (10) years.

(vi) Estimates of the total staff effort (professional and support staff; staff time) to be provided to carry out the Assignment, supported by bar chart diagrams showing the time proposed for each key professional staff team member. (Sections 3E and 3G).

(vii) A detailed description of the proposed methodology, staffing, and monitoring of training, if the Data Sheet specifies training as a major component of the assignment.

(viii) Any additional information requested in the Data Sheet.

3.5 The Technical Proposal shall not include any financial information.

Financial Proposal

3.6 In preparing the Financial Proposal, consultants are expected to take into account the requirements and conditions of the RFP documents. The Financial Proposal should follow Standard Forms (Section 4). It lists all costs associated with the Assignment, including (a) remuneration for staff , and (b) reimbursables such as subsistence (per diem, housing), transportation (national and local, for mobilization and demobilization), services and equipment (vehicles, office equipment, furniture, and supplies), office rent, insurance, printing of documents, surveys; and training, if it is a major component of the assignment. If appropriate, these costs should be broken down by activity.

3.7 Consultants shall express the price of their services in Indian Rupees.

3.8 The Data Sheet indicates how long the proposals must remain valid after the submission date (90 days from the date of submission). During this period, the consultant is expected to keep available the key professional staff proposed for the assignment. The Client will make its best effort to complete negotiations within this period. If the Client wishes to extend the validity period of the proposals, the consultants who do not agree have the right not to extend the validity of their proposals.

4. SUBMISSION, RECEIPT, AND OPENING OF PROPOSALS

4.1 Interested bidders shall login to https://kppp.karnataka.gov.in/and follow the procedures and guideline given there or call the e-proc help desk to get themselves registered in the portal. Upon registration, the bidders can login and participate in the tender.

4.2 Downloading of tender documents, submission of proposal all will be through Government of Karnataka e-Procurement website https://kppp.karnataka.gov.in/ under login for Contractors. Consultants must get themselves registered, acquainted and trained on the procedure of participating in e-procurement.

4.3 **EMD**

The consultants are requested to submit EMD of Rs. 500,000/- (Rupees Five Lakhs Only) along with the Technical Bid.

The Consultant can pay the Earnest Money Deposit (EMD) in the e-Procurement portal using any of the following payment modes:

- Credit Card
- Direct Debit
- National Electronic Fund Transfer (NEFT)
- Over the Counter (OTC)

The supplier/contractor's bid will be evaluated only on confirmation of receipt of the payment (EMD), EMD amount will have to be submitted by the supplier/consultant taking into account the following conditions:

a. EMD will be accepted only in the form of electronic cash (and not through Demand Draft or Bank Guarantee) and will be maintained in the Govt.'s central pooling account at Axis Bank until the contract is closed.

b. The entire EMD amount for a particular tender has to be paid in a single transaction. It is responsibility of Consultants to ensure that payment through NEFT reaches Payment to Government of Karnataka Bank before Bid submission date and time, through online payment.

For details on e-Payment services refer to e-procurement portal for more details on the process.

4.4 The original Proposal (Technical Proposal and Financial Proposal; see para 1.2) shall be prepared as per RFP document.

4.5 An authorized representative of the Consultant initials all pages of the Proposal along with seal. The representative's authorization is confirmed by a written power of attorney accompanying the Proposal.

4.6 The Bidder shall submit the bids separately i.e., "Technical" and "Financial" electronically online in e-portal.

4.7 Tenderer has all the time to modify and correct or upload any relevant document in the portal before submission on e-portal.

4.8 The last date and time including hours, minutes and seconds for submission will be mentioned in the portal, the bid will disappear automatically immediately after the time of submission is elapsed.

4.9 After the deadline for submission of proposals, the Technical Proposal shall be opened by the evaluation committee and evaluation will be done. The bidders who are technically qualified will be intimated and the Financial Proposal of only qualified bidders will be opened in presence of the bidders who choose to attend.

5. PROPOSAL EVALUATION

General

5.1 From the time the proposals are opened to the time the contract is awarded, if any consultant wishes to contact the Client on any matter related to its proposal, it should do so in writing at the address indicated in the Data Sheet. Any effort by the firm to influence the Client in the Client's proposal evaluation, proposal comparison or contract award decisions may result in the rejection of the consultant's proposal.

5.2 Evaluators of Technical Proposals shall have no access to the Financial Proposals until the technical evaluation, including its approval by competent Client is obtained

Evaluation of Technical Proposals

5.3 The evaluation committee appointed by the Client as a whole, and each of its members individually evaluates the proposals on the basis of their responsiveness to the Terms of Reference, applying the evaluation criteria, sub-criteria (typically not more than three per criteria) and point system specified in the Data Sheet. Each responsive proposal will be given a technical score (St). A proposal shall be rejected at this stage if it does not respond to important aspects of the Terms of Reference or if it fails to achieve the minimum technical score indicated in the Data Sheet.

Public Opening and Evaluation of Financial Proposals; Ranking

5.4 After the evaluation of quality is completed, the Client shall notify those consultants that have secured the minimum qualifying mark, indicating the date and time set for opening the Financial Proposals. The opening date shall not be sooner than one week after the notification date. The notification may be sent by registered letter, cable, telex, facsimile, or electronic mail.

5.5 The Financial Proposals shall be opened publicly in the presence of the consultants' representatives who choose to attend. The name of the consultant, the quality scores, and the proposed prices shall be read aloud and recorded when the Financial Proposals are opened. The Client shall prepare minutes of the public opening.

5.6 The evaluation committee will determine whether the Financial Proposals are complete, (i.e., whether they have costed all items of the corresponding Technical Proposals, if not, the Client will cost them and add their cost to the initial price), correct any computational errors.

5.7 The lowest Financial Proposal (Fm) will be given a financial score (Sf) of 100 points. The financial scores (Sf) of the other Financial Proposals will be computed as indicated in the Data Sheet. Proposals will be ranked according to their combined technical (St) and financial (Sf) scores using the weights (T = the weight given to the Technical Proposal; P = the weight given to the Financial Proposal; T + P = 1) indicated in the Data Sheet: $S = St \times T\% + Sf \times P\%$ The Consultant achieving the highest combined technical/ financial score will be invited for negotiations.

6. NEGOTIATIONS

6.1 Negotiations will be held at the address indicated in the Data Sheet. The aim is to reach agreement on all points and sign a contract.

6.2 Negotiations will include a discussion of the Technical Proposal, the proposed methodology (work plan), staffing and any suggestions made by the firm to improve the Terms of Reference. The Client and Consultant will then work out final Terms of Reference, staffing, and bar charts indicating activities, staff, periods in the field and in the home office, staff-months, logistics, and reporting. The agreed work plan and final Terms of Reference will then be incorporated in the "Description of Services" and form part of the contract. Special attention will be paid to getting the most the Consultant can offer within the available budget and to clearly defining the inputs required from the Client to ensure satisfactory implementation of the Assignment.

6.3 Unless there are exceptional reasons, the financial negotiations will involve neither the remuneration rates for staff (no breakdown of fees) nor other proposed unit rates.

6.4 Having selected the Consultant on the basis of, among other things, an evaluation of proposed key professional staff, the Client expects to negotiate a contract on the basis of the experts named in the Proposal. Before contract negotiations, the Client will require assurances that the experts will be actually available. The Client will not consider substitutions during contract negotiations unless both parties agree that undue delay in the selection process makes such substitution unavoidable or that such changes are critical to meet the objectives of the assignment. If this is not the case and if it is established that key staff was offered in the proposal without confirming their availability, the Consultant may be disqualified.

6.5 The negotiations will conclude with a review of the draft form of the contract. To complete negotiations the Client and the Consultant will initial the agreed contract. If negotiations fail, the Client will invite the firm who has quoted the second lowest price for negotiations. The process will be repeated till an agreed contract is concluded.

7. AWARD OF CONTRACT

7.1 The contract will be awarded following negotiations. After negotiations are completed, the Client will promptly notify unsuccessful consultants who did not pass the technical evaluation (para 5.3)

7.2 The Consultant is expected to commence the Assignment on the date and at the location specified in the Data Sheet.

8. CONFIDENTIALITY

8.1 Information relating to evaluation of proposals and recommendations concerning awards shall not be disclosed to the consultants who submitted the proposals or to other persons not officially concerned with the process, until the winning Consultant has been notified that it has been awarded the contract.

9. PERFORMANCE GUARANTEE & PERFORMANCE CLAUSE

9.1 Performance Guarantee for an amount equivalent to 5% of the contract amount of the successful bidderis to be given towards Performance of the successful consulting firm. This Performance Guarantee shall be in the form of Bank Guarantee issued by a Nationalised Bank

/ Scheduled Bank in the approved format and shall be submitted at the time executing the agreement which shall be valid for 36 months from the date of agreement and shall be renewed up to deflects liability and maintenance period of the Tendered work.

9.2 Consultants shall be expected to fully comply with all the provisions of the `Terms of Reference', and shall be fully responsible for preparation of DPR as per TOR, keeping up the time schedule. Non-compliance of the provisions of the Contract Agreement and other schedules by the consultant, non-adherence to the provision of ToR and non-adherence to the time schedule prescribed under ToR shall amount to non-performance.

9.3 In the event of non-performance by the Consultant, BBMP will retain the right to forfeitand encashthe Performance Guarantee

DATA SHEET

Information to Consultants

Clause Reference

1.1 The name of the Client is: Chief **Commissioner., BBMP,** N.R.Square, Bangalore Represented ByThe Executive Engineer.,Traffic Engineering Cell., BBMP, Bangalore Address of the client is

Executive Engineer
TRAFFIC ENGINEERING CELL.,ROAD INFRASTRUCTURE, BBMP., BANGALORE-02

The method of selection is: Quality-and Cost-Based Selection (QCBS)

1.2 A technical and a Financial Proposals are requested: **Yes**

The name, objectives and description of the Assignment are:

Name: 'Consultancy services for preparation of Comprehensive Bengaluru city road infrastructure plan to decongest traffic and to prepare comprehensive traffic management plan for proposal of vehicular tunnel / Grade separator / Road widening in selected corridor'.

Govt. of Karnataka (GoK) has ambitious programme to develop Bangalore into a world class city, among various infrastructure works that are being undertaken, a Comprehensive Road Infrastructure plan which might result is the construction of elevated corridors/tunnels is an important project that Govt. wants to develop to ease traffic movement in the city. GoK has entrusted the task of implementing the project to BBMP and hence BBMP is desirous of obtaining services of a reputed consultant in preparing the Detailed Feasibility Report. There are Twelve corridors within the city that are to be studied and prepared report for implementation, the total length of these corridors in 190 kms.

2 OBJECTIVES

The overall objective of the Consultancy assignment is to **Comprehensive Road Infrastructure plan for the selected corridors** which will be further taken for implementing, which is aimed to alleviate congestion and provide unhindered travel for commuters within the city and to provide seamless connectivity for people within and outside the city. This will contribute to savings in travel time, vehicle operating cost, improve road safety by reducing accidents and minimize carbon emissions resulting in overall economic growth. The corridors may also help in people traveling from suburban areas which will reduce load on the city as people will be willing to reside outside and travel to the city only on purpose basis.

The specific objective, however, is to prepare Detailed Feasibility Report that will demonstrate the bankable feasibility of the project from traffic, technical, economic, social, environmental and financial angles leading to preparation of tender documents, project procurement and selection of implementing agency either a contractor/concessionaire either on item rate/EPC contracts

The consultant shall undertake all surveys and investigations necessary including a comprehensive corridor wise study of existing traffic situation, traffic intensity, movement pattern, available road infrastructure, road right of way, parking demand, pedestrian and bicycle (NMT) demand, traffic signalling system, future perceived Traffic Growth, road geometry, topography, survey of utility services, land acquisition, cost estimation, economic and financial analysis and implementation plan. The outcome of the study must be inline with the following objectives:

a) Enhanced safety and level of service for the road users;
b) Superior operation and maintenance enabling enhanced operational efficiency of the Project Roads
c) Minimal adverse impact on the local population and road users due to construction activity
d) Minimal adverse impact on environment;
e) Minimal acquisition of land; and
f) State of the art Road Infra proposals including but limited to elevated road/tunnel system with interchanges, ramps, slip road, junction improvements and advanced IT system for traffic safety.

Description: as given in section 5, terms of reference

1.3 The Assignment is phased: **Yes**

1.4 A pre-proposal conference will be held: Yes

1.5 The Client will provide the following inputs:

No inputs will be provided by the client except for available relevant data and reports

1.6 The Client envisages the need for continuity for downstream work: **No**

1.7 The clauses on fraud and corruption in the contract are Sub-Clause 2.7.1 of G.C.C.

1.8 Clarifications may be requested upto seven days before the submission date.

The address for requesting clarifications is:

Executive Engineer
TRAFFIC ENGINEERING CELL., ROAD INFRASTRUCTURE, BBMP.,
BANGALORE-02.

1.9 Proposals should be submitted in the following language(s): English

2.0 (i) Shortlisted Consultant may associate with other shortlisted Consultant: No
(ii)The estimated number of key professional staff months required for the assignment is: 51 man months

(iii) Key personnel for the study shall include minimum but not limited to the following.
(However, additional man months as required can be considered by the consultants as required based specified requirements)

(1) Senior Highway Engineer - cum - Team Leader	- 6 Man months
(2) Senior Transportation planning Engineer	- 6 Man months
(3) Highway Design Engineer	- 6 Man months
(4) Traffic Engineer	- 6 Man months
(5) Bridge Engineer	- 4 Man months
(6) Tunnel Engineer	- 4 Man months
(7) Road Safety Expert	- 4 Man months
(8) Geotechnical Engineer	- 3 Man months
(9) Survey Engineer	- 4 Man months
(10) Pavement Engineer	- 3 Man months
(11) Financial Analyst	- 2 Man months
(12) Environmental expert	- 3 Man months

The minimum required experience of proposed key professional staff is as given in ToR

Reports which are part of the assignment must be written in the following language: English

2.1 Training is an important feature is this Assignment : No

Additional information in the technical proposal includes. Nil

2.2 Proposals must remain valid **90** days after the submission date
i.e. until: 90 days from the last data of submission

2.3 Consultants must submit the proposal through E-procurement website

2.4 The proposal submission address is:
https://kppp.karnataka.gov.in/

2.5 Proposals must be submitted within the date and time stipulated in https://kppp.karnataka.gov.in/

2.6 The address to send information to the Client is:
Executive Engineer
TRAFFIC ENGINEERING CELL., BBMP., BANGALORE-02

2.7 Evaluation Criteria: The number of points to be given under each of the evaluation

criteria are:

		Points
i.	Specific experience of the consultants related to the Assignment	25
ii.	Adequacy of the proposed work plan and methodology in responding to the TOR	20
iii.	Qualifications and competence of the professional staff for the Assignment	55
	- Senior Highway Engineer - cum - Team Leader - 10	
	- Senior Transportation planning Engineer - 5	
	- Highway Design Engineer - 5	
	- Traffic Engineer - 5	
	- Bridge Engineer - 5	
	- Tunnel Engineer - 5	
	- Road Safety Expert - 5	
	- Geotechnical Engineer - 5	
	- Survey Engineer - 2	
	- Pavement Engineer - 3	
	- Financial Analyst - 3	
	- Environmental expert - 2	
	Total Points:	100

The number of points to be given for qualifications and competence of the professional staff for the assignment are:

		Points
i.	General qualifications	30
ii.	Adequacy for the project	60
iii.	Experience in region & language	10
	Total Points:	100

The minimum technical score required to pass is : 75 Points

2.8 The formula for determining the financial scores is the following:
[Sf = 100 x Fm/F, in which Sf is the financial score, Fm is the lowest price, and F the price of the proposal under consideration]

The weights given to the technical and Financial Proposals are:
Technical = 0.80 and
Financial = 0.20

2.9 The address for negotiations is:
Executive Engineer
TRAFFIC ENGINEERING CELL, ROAD INFRASTRUCTURE, BBMP., BANGALORE-02

SECTION 3. TECHNICAL PROPOSAL - STANDARD FORMS

3A. Technical Proposal submission form.

3B. Consultant's references.

3C. Comments and suggestions on the Terms of Reference and on data services, and facilities to be provided by the Client.

3D. Description of the methodology and work plan for performing the assignment.

3E. Team composition and task assignments.

3F. Format of Curriculum Vitae of proposed key professional staff.

3G. Time schedule for professional personnel.

3H. Activity (work) schedule.

3A. TECHNICAL PROPOSAL SUBMISSION FORM

[Location, Date]

From: To:

[Name and Address of Firm] **Executive Engineer**
TRAFFIC ENGINEERING CELL., BBMP., BANGALORE-02

.

Sir,

(b) Subject: "Consultancy services for preparation of Comprehensive Bengaluru city road infrastructure plan to decongest traffic and to prepare comprehensive traffic management plan for proposal of vehicular tunnel / Grade separator / Road widening in selected corridor"

We, the undersigned, offer to provide the consulting services for the above in accordance with your Request for Proposal dated *[Date]*, and our Proposal. We are hereby submitting our Proposal, which includes this Technical Proposal, and a Financial Proposal submitted undere-procurement website.

If negotiations are held during the period of validity of the Proposal, i.e., before *[Date]* we undertake to negotiate on the basis of the proposed staff. Our Proposal is binding upon us and subject to the modifications resulting from contract negotiations.

We understand you are not bound to accept any Proposal you receive.

We remain,

Yours sincerely,

Authorised Signature:
Name and Title of Signatory:
Name of Firm:

Address:

3B. CONSULTANT"S REFERENCES

Relevant Services carried out in the last Five Years that best illustrate qualifications

Using the format below, provide information on each reference assignment for which your firm/entity, either individually as a corporate entity or as one of the major companies within an association, was legally contracted.

<table>
<tr><td colspan="2">Assignment Name:</td><td colspan="2">Country:</td></tr>
<tr><td colspan="2" rowspan="3">Location within Country:</td><td colspan="2">Professional Staff Provided by your Firm/Entity (profiles):</td></tr>
<tr><td colspan="2">No of Staff:</td></tr>
<tr><td colspan="2">No of Staff Months:
Duration of Assignment:</td></tr>
<tr><td colspan="4">Name of the Client:</td></tr>
<tr><td colspan="4">Article II. Address:</td></tr>
<tr><td>Article III. Start Date (Month/Year):</td><td>Article IV. Completion Date (Month/Year):</td><td colspan="2">Article V. Approx.Value of Services</td></tr>
<tr><td colspan="2">Article VI. Name of the Associated Consultants, if any</td><td colspan="2">No. of Months of Key professional staff, provided by Associated Consultants.</td></tr>
<tr><td colspan="4">Article VII. Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed:</td></tr>
<tr><td colspan="4">Narrative description of the project:</td></tr>
<tr><td colspan="4">Description of Actual Services provided by your Staff:</td></tr>
</table>

(i) Consultant's Name:……

3C. CONSULTANT'S COMMENTS AND SUGGESTIONS ON THE TERMS OF REFERENCE AND ON DATA, SERVICES, AND FACILITIES TO BE PROVIDED BY THE CLIENT

On the Terms of Reference:

1.

2.

3.

4.

5.

On the data, services, and facilities to be provided by the Client

1.

2.

3.

4.

5.

CONSULTANT'S NAME:

3**D. DESCRIPTION OF THE METHODOLOGY AND WORK PLAN FOR PERFORMING THE ASSIGNMENT**

3E. TEAM COMPOSITION AND TASK ASSIGNMENTS

1. Technical/ Managerial Staff

Sl. No.	Name	Position	Task
1.			
2.			
3.			
4.			

2. Support Staff

Sl. No.	Name	Position	Task
1.			
2.			
3.			
4.			

3F. FORMAT OF CURRICULUM VITAE (CV) FOR PROPOSED PROFESSIONAL STAFF

Proposed Position:
_____

Name of Firm:
_____

Name of Staff:
_____

Profession:
_____

Date of Birth:
_____

Years with Firm/Entity: _____ Nationality: _____

Membership in Professional Societies:
_____

_____

Detailed Tasks Assigned: _____

_____

Key Qualifications:

[Give an outline of staff member's experience and training most pertinent to tasks on assignment. Describe degree of responsibility held by staff member on relevant previous assignments and give dates and locations. Use about half a page]

_____

Education:

[Summarise college/university and other specialised education of staff member, giving names of schools, dates attended, and degrees obtained. Use about one quarter of a page.]

_____

Employment Record:

[Starting with present position, list in reverse orderevery employment held. List all positionsheld by staff membersince graduation, givingdates, names of employing organisations, titles of positions held, and locations ofassignments. Forexperience in lastten years, also give types of activities performedand clientreferences. Whereappropriate. Use about three-quarters of a page.]

_____

Languages:

*[For*each language indicate *proficiency:*excellent, good, fair, or poor; in speaking, *reading, and writing]*

Language	Speaking	Reading	Writing
Kannada			
Hindi			
English			

_____

Certification:

I**,** the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and my experience.

_____Date:_____

[Signature of staff member] ***Day / Month / Year***

Full name of staff member:_____

I hereby give an undertaking to the effect that the above mentioned staff would be available for BBMP during the period of consulting service.

_____Date:_____

[Signature ofauthorized representative of the Firm] ***Day / Month / Year***

Full name of authorisedrepresentative:_____

3G. TIME SCHEDULE FOR PROFESSIONAL PERSONNEL

Sl.No.	Name	Position	Reports Due/ Activities	Months (in the form of a Bar Chart)												
				1	2	3	4	5	6	7	8	9	10	11	12	Number of Months
1																Subtotal (1)
2																Subtotal (2)
3																Subtotal (3)
4																Subtotal (4)

Full-time: _____ Part-time: _____
Reports Due: _____
Activities Duration: _____

Signature: _____
(Authorised Representative)

Full Name: _____

Title: _____

Address: _____

3H. ACTIVITY (WORK) SCHEDULE *

A. Field Investigation and study Items:

Sl No.	Item of Activity (Work)	Month wise program (in form of Bar Chart) ++ [1st, 2nd, etc. are month from the start of assignment)											
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th

++ The program should be for the period of completion of assignment.

B. Completion and Submission of Reports

Reports:*	Programme: (Date)
1. Inception Report	
2. Interim Progress Report a) First Status Report b) Second Status Report	
3. Draft Report	
4. Final Report	

*** Modify as required for the Assignment.**

SECTION 4.

FINANCIAL PROPOSAL – STANDARD FORMS

4A. Financial proposal submission form.

4B. Summary of costs

4C. Breakdown of price per Phase

4A. FINANCIAL PROPOSAL SUBMISSION FORM

FROM: (Name of Consultant) TO:

Ladies/Gentlemen:

Subject: Hiring of Consultants' Services for

Financial Proposal.

We. The undersigned, offer to provide the consulting services for the above in accordance with your Request for Proposal dated *[Date]*, and our Proposal (technical and Financial Proposals). Our attached financial proposal is for the sum of *[Amount **in** words and figures]* inclusive of all taxes

Our financial proposal shall be binding upon us subject to the modifications resulting from contract negotiations, up to expiration of the validity period of the Proposal. i.e., *[Date]*.

We undertake that, in competing for (and, if the award is made to us. in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India namely "Prevention of Corruption Act 1988".

We understand you are not bound to accept any Proposal you receive.

We remain,

Yours sincerely,

Authorized Signature:
Name and Title of Signatory:
Name of the
Consultant:
Address:

4B. SUMMARY OF COSTS

No	**Description**	**Unit**	**Unit Rate**	**Amount** (Rupees)
1	Consultancy services for preparation of Comprehensive Bengaluru city road infrastructure plan to decongest traffic and to prepare			
	PHASE 1 – Preparation of Traffic Management Plans with Concept Level drawings to decongest	Lump sum	-	
	PHASE 2 – Detailed Design of selected proposals along with Costings and BoQs and preparation of			
	A-design of Elevated corridor	KM		
	B-design of Tunnelcorridor	KM		
	C-design of At grade Road corridor	KM		
	TOTAL COST (Including all taxes but excluding service tax)			
	GST			
	TOTAL COSTS (Including GST)			

For quoting Phase-2, the consultant shall consider a unit length of 1 km for elevated corridor, Tunnel corridor and at grade road corridor each. The payment will be made based on the length of roads considered for design under each category in Phase-2

4C. BREAKDOWN OF COSTS (RS) **

* * Prepare details as appropriate for the consultancy assignment and to be submitted during agreement

REMUNERATION FOR STAFF

No.	Position	Name	Rate* (Rs.)	SM	Amount (Rs)
	Key professional staff				
1.					
2.					
3.					
4.					
5.					
6.					
	Sub-Total				
	Sub-Key professional staff				
1.					
2..					
3.					
4.					
5.					
6.					
	Sub-Total				
	TOTAL				

SM = Staff Month

II. Support Staff

Sl. No	Position	Name	Staff Months	(Rs)	Amount(Rs)
1					
2					
3					
4					
				Total :	

Ill Transportation *

Total:

I. Duty Travel to Site *

Total:

V Office Rent

Total:

*Prepare details as appropriate for the consultancy assignment.

VI. Office Supplies, Utilities and Communication

No.	**Item***	**Months**	Monthly Rate. (Rs)	Amount in (Rs)
1				
2				
3				
4				

TOTAL: ----------

---

* Prepare details as appropriate for the consultancy assignment.

VII. Office Furniture and Equipment

No.	Description(*)	Unit	Quantity	Rate In Rs	Amount In Rs
l	Office Furniture (Purchase)				
2					
3					
4					

5					
6					
	Office Equipment				
1					
1					
3					
4					
5					
6					
				Total	

* Prepare details as appropriate for the consultancy assignment

VIII. Reports and Document Printing

No.	**Description***	Number	**No. of Copies**	**Rate per Copy (Rs)**	Amount (**Rs.)**
1 2 3 4 5					
				Total	

SECTION 5. TERMS OF REFERENCE

1. BACKGROUND

2. OBJECTIVES

3. DETAILED SCOPE OF SERVICES:

4. REPORTS, TIME SCHEDULE AND PAYMENT SCHEDULE

5. SPECIFIC RESPONSIBILITIES OF THE CONSULTANT

6. OBLIGATIONS OF THE CLIENT

A. BACKGROUND

1.1 Govt. of Karnataka (GoK) has ambitious programme to develop Bangalore into a world class city, among various infrastructure works that are being undertaken, a Comprehensive Road Infrastructure plan which might result is the construction of elevated corridors/tunnels is an important project that Govt. wants to develop to ease traffic movement in the city. GoK has entrusted the task of implementing the project to BBMP and hence BBMP is desirous of obtaining services of a reputed consultant in preparing the Detailed Feasibility Report

There are tweleve High Density corridors within the citythat are to be studied and prepared report for implementation, the total length of these corridors in **190 kms.**

HDC No	Corridor Name	Approx. Length in Km
1	Bellary Road- Old madras road corridor :From Esteem Mall Junction to Mekri circle to Miller Road, Kensington Road, Murphy Road to Old Madras Road	**14**
2	Bellary Road – From Mekri Circle to Chalukya Circle	**7**
3	Old Madras Road – From Trinity Circle to Hope farm via Budigere and K R puram	**25**
4	Old Airport Road – From ASC junction to Yamalur Junction	**18**
5	Sarjapura Road- From Hosur Road Junction to sarjapur	**10**
6	Hosur Road –From Bellara Junction to Silkbord junction	**6**
7	Bannergatta Road- from ORR junction to Bannerugatta Road BBMP limits	**17**
8	Kanakapura Road- from Krishna Rao park junction to NICE junction	**15**
9	Mysore Road-From Sirsi circle to NICE road	**10**
10	Magadi Road-From Leprocy junction to NICE road	**12**
11	Tumkur Road- From Yeshwanthpura junction to Tumkur road BBMP limits	**10**
12	**Outer Ring Road**	
12a	Goragunte Palya to K R Puram	**18**
12b	K R Puram to Silk Board	**16**
12c	Silk Board to Mysore Road	**12**
13	Any other Junction/Corridor	
	Total Length, Km	**190**

1.2 The Consultant shall be guided in its assignment by the Model Concession Agreement and appropriate Manual of Specifications published by MoRTH through Public Private Partnership. The specification and standards applicable for the proposed corridors shall be prepared by the Consultant duly taking into consideration of 4 laning and 6 laning manuals (the "**Manual**")

1.3 The Consultant shall be responsible for preparing the Schedules A, B, C, D, G,

H and K of the Concession Agreement and for bringing out any special feature or requirement of the Project Highway referred to in the Concession Agreement or the Manual. The details and particulars to be specified in the Schedules shall be duly addressed and incorporated therein, in accordance with the provisions of the Manual

1.4 The Consultant shall assist the Authority and its Financial Consultant and the Legal Adviser by furnishing clarifications as required for the financial appraisal and legal scrutiny of the Project Highway and Bid Documents.

1.5 The Consultant shall also participate in the pre-bid conference with the Bidders of the Project Highway and assist the Authority in clarifying the technical aspects arising from the Bid Documents including the Feasibility Report.

2 OBJECTIVES

The overall objective of the Consultancy assignment is to **Comprehensive Road Infrastructure plan for the selected corridors** which will be further taken for implementing, which is aimed to alleviate congestion and provide unhindered travel for commuters within the city and to provide seamless connectivity for people within and outside the city. This will contribute to savings in travel time, vehicle operating cost, improve road safety by reducing accidents and minimize carbon emissions resulting in overall economic growth. The corridors may also help in people traveling from suburban areas which will reduce load on the city as people will be willing to reside outside and travel to the city only on purpose basis.

The specific objective, however, is to prepare Detailed Feasibility Report that will demonstrate the bankable feasibility of the project from traffic, technical, economic, social, environmental and financial angles leading to preparation of tender documents, project procurement and selection of implementing agency either a contractor/concessionaire either on item rate/EPC contracts

The consultant shall undertake all surveys and investigations necessary for effective planning and implementation of the project. It shall include a comprehensive corridor wise study of existing traffic situation, traffic intensity, movement pattern, available road infrastructure, road right of way, parking demand, pedestrian and bicycle (NMT) demand, traffic signalling system, future perceived Traffic Growth, road geometry, topography, survey of utility services, land acquisition, cost estimation, economic and financial analysis and implementation plan. The major objectives are:

a) Enhanced safety and level of service for the road users;
b) Superior operation and maintenance enabling enhanced operational efficiency of the Project Roads
c) Minimal adverse impact on the local population and road users due to construction activity
d) Minimal adverse impact on environment;
e) Minimal acquisition of land; and
f) State of the art elevated road/tunnel system with interchanges, ramps, slip road, junction improvements and advanced IT system for traffic safety.

3. SCOPE OF SERVICES

The Consultant shall perform all necessary planning, Engineering analysis, field investigations and related works as described herein with due care and diligence to attain the objectives of the study. In the conduct of his work, the Consultant shall contact the various departments for any additional information required for the study in liaison with BBMP. The BBMP will provide the Consultant with available reports, data and services appropriate to achieving the objectives of the study. The Consultant shall be however responsible for the analysis and interpretation of all data received, undertake other studies to validate the data and give conclusions and recommendations derived from this data.

The Consultant shall perform the principal services outlined below as a part of responsibility for the preparation of Detailed Feasibility Report. They shall provide the qualified professional staff with relevant experience to carry out the assignment.

The study will be divided into following two stages

PHASE 1 – Preparation of Traffic Management Plans with Concept Level drawings to decongest major corridors and junctions

PHASE 2 – Detailed Design of selected proposals along with Costings and BoQs and preparation of Tender Documents.

The consultants shall approach the assignment and make deliverables as per the above two stages, the work for stage-2 shall be undertaken after completing and in approval of Phase-1. The Services will include but not be limited to the following:

3.1 The scope of services shall comprise:

(i) Traffic surveys and demand assessment

(ii) Engineering surveys and investigations

(iii) Location, layout and type of toll collection and toll plazas

(iv) Design of elevated corridors, tunnels, interchanges, loops

(v) Location and layout of approach ramps, loops ramps, interchanges and laybys

(vi) Location and layout of bus bays and bus shelters

(vii) Social impact assessment

(viii) Environment impact assessment

(ix) Preliminary designs of road, bridges, structures, etc.

(x) Preparation of Land Plan Schedules

(xi) Preparation of state of the artUtility Relocation Plans

(xii) Preparation of indicative BOQ and rough Cost Estimates

(xiii) Preparation of Schedules A, B, C, D, G, H and K of the Concession Agreement.

(xiv) Preparation of conceptual plans for road-side amenities.

(xv) Physical facilities necessary for Advanced Traffic Management System (ATMS).

These services are briefly explained hereunder:

PHASE 1 – PREPARATION OF TRAFFIC MANAGEMENT PLANS WITH CONCEPT LEVEL DRAWINGS TO DECONGEST MAJOR CORRIDORS AND JUNCTIONS

The objectives of this stage is to collect data, conduct traffic studies, understand the problems, study the corridors and make a baseline to recommend the short, medium and long term solutions to the traffic and proposals to the selected corridors. The outcome of stage-1 will define work for stage-2 work like which corridors needs to be upgraded to elevated corridors and/or underground corridors (tunnels), which junctions need to be proposed with interchanges, what other short or medium improvements required will be finalized.
Hence stage-1 work is crucial as it will determine the direction and quantum of work for stage-2. The scope under stage -1 is given below but limited to

3.2 Traffic surveys and demand assessment

3.2.1 The corridors listed in the RFP shall be thoroughly studiedfor improvements on these corridors and come out advantages and disadvantages and also suggest alternative routescan be considered technically The Consultants shall undertake the feasibility study and carryout viability analysis for the estimated cost, without limiting to the following:

(i) Since the corridors crisscross the city, the study will include comprehensive traffic and transportation study of the entire city with elaborate traffic studies and surveys which will enable to prepare a good transport model for the city itself. A model or report already available with various Govt. agencies including BMRCL/BDA/DULT/BBMP may be studied and data relevant can be considered

(ii) Estimation of total transport demand in the corridor and the modal split between road and rail, metro, to arrive at the passenger and freight

movements by road along the corridor. Assignment of the passenger and freight movement to various alternative routes (e.g. existing NH and the Elevated corridor route) has to be presented in terms of vehicular movement. Break up of the freight has to be broadly commodity-wise.

(iii) Projection of the vehicular traffic using both corridor trend growth and growth based on socioeconomic parameters and elasticity factors has to be made. This will include the diverted and generated traffic, induced traffic and developmental traffic. All necessary traffic and engineering surveys in this regard will need to be carried out.

(iv) The split of the total traffic has to be determined. For passenger movement, the split has to be in terms of public transport vehicles (buses),personal vehicles and vehicles for freight movement this has to be in terms of Light commercial vehicles, two axle trucks, multi-axle trucks and container tractors/trailer. Based on the present and projected vehicular traffic and results of diversion analysis, the need for construction of an Elevated corridor or a tunnel corridor of adequate capacity and cross-section (4/6 lanes and a higher number of lanes as required) has to be established based on the capacity norms of IRC/MOSRTH and other international standards such as AASHTO, TRB etc.

3.2.2 Major requirements of data/surveys for the tasks to be accomplished in course of the consulting services are enumerated below, but the surveys shall not be limited to the following primary data collection:

(i) Origin-destination survey of the vehicular traffic along the project roads and influencing corridors

(ii) Interviews/surveys are also needed at all the IT/big offices/industries to help in plotting the desired lines. Both personal vehicle usage, private vehicles (buses), need to be collected separately

(iii) Classified traffic volume counts for determining actual vehicular traffic flow along the homogeneous sections along the project roads;

(iv) Classified traffic volume counts for determining actual cross traffic flow along the cross roads/intersections together with turning movements;

(v) Vehicle speed distribution and journey time;

(vi) Speed-flow relationship and the level of service;

(vii) Bottlenecks and delays points to be mapped clearly

(viii) Pedestrian crossing traffic count at all junctions and important locations of along the Elevated corridor to recommend appropriate POP/PUP

3.2.4 Traffic demand assessment

(a) The Consultant shall make an assessment of the traffic demand for the Project Highway for a period of 10 (ten) years, 15 (fifteen) years, 20 (twenty) years and 25 (twenty five) years respectively based on

analysis of traffic counts, trend growth and growth in the influence area of the Project roads.

(b) Based on the assessment of the traffic demand on the various sections of the Project Road, the Consultant shall provide whether the elevated roads require four/six or more lanes may be required. The Consultant shall also provide sensitivity analysis due to change in assumption of traffic projections.

3.2.5 Intersection volume count and design

(i) Volume count

For conducting the intersection volume count, the turning movement traffic surveys shall be carried out at all major junctions along and in influencing roads

(b) Design

(i) The data at each location shall be presented and analysed to identify suitable treatment viz. grade separator without ramps or interchange with ramps in the light of warrants and criteria applicable to Elevated corridor/tunnels. The type and layout proposed by the Consultant for each location shall be furnished along with the analysis supporting the same. Where an interchange with ramp is indicated by the analysis, its type should be determined keeping in view the site conditions.

(ii) The amount of additional land required, if any, at each of the interchanges on the Project Highway shall be clearly stated and brought out.

(iii) For all cases where grade separators without ramps or interchanges with ramps are proposed, the possibility of their provision on the Project Highway in a phased manner shall be duly examined and a report on the cost-effectiveness of the Consultant's proposal submitted for consideration of the Authority to enable it to specify such requirements in the relevant Schedules of the Concession Agreement.

3.2.6 Pedestrian crossing demand assessment

For assessing the requirements of Pedestrian crossings, the traffic counts shall be carried out at all the major junctions and important locations along the Project road and influencing area.

3.3 Corridors and Alignment study

3.4.1 The consultant shall study the listed corridors and understand them thoroughly including the existing patterns, RoW, traffic density, places the corridors leads to, existing and proposed development plans from various stakeholders, available space for further capacity

augmentation.

3.4.2 The consultant shall study the alternative roads parallel to the corridors under study which can be possible corridors also together or in-lieu of corridors under study after assessment on techno economic consideration

3.4.3 The consultant shall study the roads joining the corridors under study in perpendicular, linking roads and identify potential routes to connect the corridors intermediate so that the traffic can be diverted to the alternative roods. Such potential roads can be existing narrow roads or new roads can be formed along vacant spaces or along side the nala/drains. This study and proposal is vital as these can create additional corridors and diversion roads from one corridor to another as well as reduce traffic on high density corridors for short diversions. The options of development of such linking roads can also be elevated or underground if widening cant be done

3.4.3 The consultant shall study the city development plan/master plan for proposed CDP roads in the study are and critically assess if these roads can be developed into potential traffic easing corridors

3.4 Traffic Management Plans

3.4.1 based on the traffic studies, demand, forecasting, alignment/corridor study, assessment, the consultant shall firm of alternative options of traffic management plans. The consultant must propose 2-3 alternative proposals on how best the traffic can be eased out, seamless traffic movement can be made, which corridors must be proposed for elevated corridors, or road widenings, or tunnels, or simple interchanges, or combination of elevated/at-grade/tunnel proposals.

3.4.2 The consultant proposalsshall be clearly marked with short term, medium term and long term proposals with approximate timelines to implement. The proposals must be clearly marked on strip plans/satellite images showing the traffic movements, layout, impacted areas, all the proposed components etc.,

3.4.2 once such proposals are clearly spelled out, discussed with client, then subject these corridors for detailed topographicsurveys

PHASE 2 – PRELIMINARY DESIGNS OF SELECTED PROPOSALS ALONG WITH COSTINGS AND BOQS AND PREPARATION OF TENDER DOCUMENT

On Approval of Phase-1 Proposals, the consultants shall start Phase-2 works as outlined below

3.5 Engineering surveys and investigations

3.3.1 Topographic, alignment and land use survey

The detailed topographic survey of the alignment shall be done using total station and GPS and will be produced in both electronic format (in X, Y, Z coordinate system) and hard copies. Plans, longitudinal sections and cross-sections shall be prepared to the scale prescribed in IRC/MORTH standards. All the existing and proposed features, such as land-use, limits of right-of-way, embankment, structures, intersecting roads, existing utilities, interchange loops and ramps, access roads, wayside amenities, toll plazas, operation and maintenance infrastructure, safety structures, etc. shall be shown on kilometer-wise plans.

The activities and Deliverables forming part of the topographic, alignment and land use survey are described below (see also Attachment A to the TOR):

(a) Divide the corridors into homogenous sections based on the existing road widths and importance of routes.

(b) As far as possible, the proposed alignment would follow the existing roads subject to the following requirements:

Identify stretches which do not meet the criterion of ruling design speed, i.e. where radii of horizontal curves are less than desirable minimum. Prepare realignment plans for improving geometrics in such stretches.

Identify stretches out of (i) above, which meet the criterion of minimum design speed, i.e. where the radii of horizontal curves are more than the absolute minimum (This will enable the Authority to take a view on whether to include such stretches for improving geometrics in the initial stage or these can be postponed by a few years and in the meantime steps can be taken to acquire the necessary land for the ROW).

Identify stretches where extra width of roadway and carriageway at curves is required.
Locations where ramps, loops, interchanges are to be provided

(c) Identify existing bridges/culverts, ROB/RUB and other grade separated structures and their approaches. Work out proposals on how to deviate them or move to different level and also provide connections to them with appropriate ramps or loops. At locations exsitng structures may have to be integrated with the current proposal with

suitable modifications also.

(d) Prepare alignment plans, L-Sections and cross-sections of the entire Project roads both elevated roads, at grade road improvements, junctions, interchanges, ramps, loops, etc.,

(e) The width of the right-of-way for the Elevated corridor shall be determined on the basis of the proposed cross-section and future expansion needs. Additional land that is required for interchanges, wayside amenities, toll plazas, and operation and maintenance infrastructure etc. shall be determined. Preparation of land plan schedules for taking up land acquisition by BBMP shall be an important part of the services. These schedules shall be prepared on the basis of revenue maps and shall include the details of survey numbers coming under acquisition.

The Land Plan should also show encroachments, if any. A list of such encroachments along with their brief description shall also be prepared and included in the Feasibility Report.

(f) For additional land proposed to be acquired as per final alignment plan of the Project Highway, the Land Plans shall be marked on duly certified revenue maps showing khatha numbers and shall be furnished along with a report which will include detailed schedules in respect of the proposed acquisition of land holdings as per revenue records in a format that would enable the Authority to initiate land acquisition proceedings.

(g) A set of cross-sections of the existing road including urban sections at one km intervals for each homogeneous section in plain/rolling terrain and at 100 m intervals in mountainous/steep terrain shall be provided by the Consultant. In plain/ rolling terrain, additional cross-sections shall be provided for curves at the start, at the middle and at the end. These cross-sections along with proposed improvement plan and preliminary design shall form the basis of preparation of indicative BOQ for the Project Highway.

3.3.2 Soil, geotechnical, material, hydrology and drainage surveys

The Consultants shall carry out geo-technical investigations and sub-surface explorations for the proposed Bridges / Road overbridges/ tunnels/ viaducts/ interchanges etc. The activities and Deliverables forming part of the soil, geotechnical, material, hydrology and drainage surveys are described below:

(a) The characteristics of the existing soil, determination of subgrade CBR of the Project roadsas per relevant specifications.

(b) Investigations of the subsoil strata (trial bores at 15% of the numbers as required as per IRC standards)

(c) However, where a study of geo-technical reports and information available from other departments or fromBBMP as part of earlier DPR or ongoing proejcts or for BMRCL project, the same shall be collected and utilized.

(d) Sub-soil investigations will be done as per IRC 78-2000

(e) For tunnels if required, geotechnical and subsurface investigation shall be done asper IRC:SP:91

(f) The scheme for the borings locations and the depth of boring shall be prepared by the Consultants and finalised in consultation with BBMP f

(g) The sub-soil exploration and testing should be carried out through the experienced team. The soil testing reports shall be in the format prescribed in relevant IRC Codes.

3.4 Proposal for utility shifting

a. The Consultants shall collect details of all important physical features along the alignment. These features affect the project proposals and should normally include buildings and structures, monuments, burial grounds, cremation grounds, places of worship, railway lines, stream / river / canal, water mains, severs, gas/ oil pipes, crossings, trees, plantations, utility services such as electric, and telephone lines (O/H & U/G) and poles, optical fibre cables (OFC) etc. The survey would cover the entire right-of-way of the road on the adequate allowance for possible shifting of the central lines at some of the intersections locations.

b. The information collected during reconnaissance and field surveys shall be shown on a strip plan so that the proposed improvements can be appreciated and the extent of land acquisition with L.A schedule, utility removals of each type etc. assessed and suitable actions can be initiated. Separate strip plan for each of the services involved shall be prepared for submission to the concerned agency.

c. Utilities are important component in urban areas, utilities along the proposed project roads shall be studied and a comprehensive plan for shifting these utilities shall be prepared. The proposals shall be practical, futuristic and

cause least disturbance during construction of the project corridors. In this regard the consultants shall coordinate with the respective utility agencies and prepare a comprehensive plan.

3.5 ROBs/RUBs

The Consultant shall identify all locations of the existing RoB/RUB and railway level crossings on the Project roads. proposals for modifications of the existing RoB/RUB and for new provisions shall be made. The Consultant shall prepare and submit indicative GADs of the proposed

3.6 Drainage, retaining walls, breast walls, etc.

The proposed corridors pass or cross many major storm water drains. Consultants shall prepare a Comprehensive storm water study and design the road side drainage and modifications to storm drainage structures along the proposed alignment .

3.7 Road signs, safety devices

(a) The Consultant shall propose provision of Road Signs, Pavement Markings, Safety Barriers, Railings, Delineators, Chevron Markings, Traffic Attenuators, Road Boundary Stones, Km Stones, 200 m Stones. It shall also include Crash Barriers for existing bridges.

(b) The Consultant shall propose overhead signs on the Project Highway and provide an outline of the same giving size and location.

3.8 Toll Plazas

Since the proposed project is in the city, construction of conventional toll plazas may not be feasible, in this regard, the consultant shall study the alternative toll collection systems practices elsewhere in the world and also an innovative way of toll collection. Authority excepts the consultants to come out with a most practical, feasible and technology liked method for toll collection.

The Consultant shall study the current concessions and provisions laid down in the Toll Rules, Model Concession Agreement and the Manual. Recommend suitable modifications to the toll policy to fit into the urban conditions and help the authority to finalize a suitable method and modifications to the toll policy.

3.9 Ramps, Interchanges, loops and laybyes

The Consultant shall comprehensively study all locations where approach Ramps, interchanges, loops are proposed and prepare layout that are user friendly, safe and provide signal free movements. Laybyes and Facilities for for emergency evacuations are also needed .

3.10 Bus bays and bus shelters

The Consultant shall undertake field surveys and identify suitable locations for

provision of bus bays and bus shelters on the Project Highway at grade. The Consultant shall also indicate the locations of bus stands/bus stops provided by the concerned State Transport Authorities/BMTC on the Project Roads.

At some locations bus stops may be required to be provided on elevated corridors itself, such locations are to be studied and designed with bays and accessibility with lifts/escalators to connect to other multimodal transport

3.11 Social impact assessment

The Consultant shall undertake social impact assessment on the Project Highway, especially the persons affected due to the Project and requiring resettlement and rehabilitation. The extant policies and guidelines of the government would be kept in view while undertaking the assessment. He shall prepare a plan for involuntary resettlement and land acquisition, which shall include the following:

(a) Prepare in accordance with guidelines of the Government, a draft Resettlement and Land Acquisition Plan;

(b) Prepare area specific social assessments to support development of a locally relevant approach to resettlement which provides benefits to people in the Project's area of influence, which include socioeconomic conditions, social service infrastructure, and social institutions and organization, in accordance with the Government policies and guidelines;

(c) These social assessments should include gender and local ethnic aspects;

(d) Provide recommendations and action plan for the Concessionaire to undertake, at the detailed design stage, a full census and inventory of lost assets (households, shops and agricultural and other lands, or access to current income-generating activities, including impacts caused by permanent or temporary acquisition) of affected people and a baseline socioeconomic survey of the affected population. Determine the scope and magnitude of likely resettlement and land acquisition effects, and list likely losses of households, agricultural lands, business and income opportunities, as well as affected communal assets and public buildings;

(e) In consultation with local stakeholders, government and the Authority, develop an entitlement matrix, on the basis of the consultations, socio-economic surveys, and inventories of losses that will determine the amount of compensation in accordance with the guidelines and policies of the Government;

(f) Prepare the plans with full stakeholder participation, including the Government and the Authority. Consult with affected persons and community-based organizations to ensure that all affected persons have been fully informed of their entitlements through the consultative processes initiated by the Government and the Authority. Ensure that communities and displaced persons understand the project, its impacts,

and the responsibilities of the parties; and

(g) Analyse and confirm the following aspects that will apply to land acquisition and resettlement in the project area: (i) laws and regulations, including local practices; (ii) budgetary processes for involuntary resettlement and land acquisition; (iii) schedules for these activities that are coordinated with the construction schedule; and (iv) administrative arrangements and requirements.

3.12 Environment impact assessment

(a) The Consultant shall undertake environment impact assessment of the Project Highway as per provisions of the Applicable Laws on environment protection and identify a package of measures to reduce/eliminate the adverse impact identified during the assessment. An environmental impact assessment report and environmental management plan shall be prepared based on such assessment. The management plan shall include project specific mitigation and monitoring measures for identified impacts as well as management and monitoring plans to address them.

(b) The Consultant shall also assist the Authority in conducting public hearings and addressing the comments and suggestions received during the EIA process with a view to getting environmental clearance from the competent authority.

Alignment selection has been done after a thorough study of the corridor features through maps, satellite imageries etc. As such, the study should include the aspect to ensure that the surface runoff obstructed by the Elevated corridor embankment is properly diverted to the streams where it is destined to, by a system of longitudinal drains discharging into these streams. Environmentally and ecologically sensitive areas, water bodies, forests and heritage structures have been identified through the satellite imageries and care has been taken that alignment should not pass through such areas. As far as possible, acquisition of agricultural land has been minimized and alignment is taken through wasteland. However, in the detailed study, any problems associated with the alignment will have to be identified by the Consultant and suitable solutions will be proposed by the Consultant.

3.13 Preliminary designs

a) The Consultant shall arrive at the preliminary designs of various components of the Project Highway keeping in view the requirements of the Manual and the scope of services described in this TOR. It shall be responsible for the accuracy of the physical details such as alignment, right of way, abutting land use, assets within the right of way including safety devices, utilities, trees, service roads, cross drainage structures, etc. The layout and preliminary designs shall be supplemented with explanatory drawings, statements, charts, notes as

necessary. The Consultants shall develop as a part of these services a set of design standards appropriate for Elevated corridor which will eventually form Schedule D. Based on these standards, the consultants shall undertake the preliminary design considering the soil and material availability, geometric design standards, hydraulic investigations, operational requirements of the Elevated corridor/tunnels and facilities etc. The scope shall include, but not limited to, the following:

b) The Elevated corridor/tunnel geometry shall be designed for a speed of minimum 65 km per. Loops and ramps shall be designed considering the speed differential of the Elevated corridor/tunnel traffic and traffic on the intersecting roads so as to ensure that merge and diverge operations on Elevated corridor and intersecting roads are smooth and safe. The geometry of the Elevated corridor shall be such that it would have smooth flowing horizontal and vertical alignments with proper combinations of curvature, tangents and grades to enhance the safety and aesthetic aspects of the Elevated corridor. Elevated corridor cross-section shall be supported on single pier. The cross-section shall include paved shoulders on either side of the carriageways, the widths of which shall be decided on the basis of international best practice.

   At sections where elevated corridor is proposed, following guidelines shall be noted

   (i) At locations, the elevated corridor might be in multiple levels either to accommodate the existing flyover or because of land constraints, consultants must provide state of the art proposals at such locations which are safe, buildable and economical
   (ii) At places, the elevated corridor will pass along the proposed metro corridors, at such locations, integration of metro and elevated corridor on the same structure shall be explored and proposal be made
   (iii) Emergency crossovers shall be provided at appropriate locations to avoid extreme adverse travel for emergency and law enforcement vehicles. Maintenance crossovers shall also be provided to facilitate maintenance operations. The width of the crossovers shall be sufficient to provide safe turning movements.
   (iv) The elevated corridor shall be supported with central single pier, long spans, the design shall be aesthetic and type shall be the one which consumes least space and time for construction. Innovative, on par with the best structures in world shall be proposed. Consultants shall benchmark the proposals with the similar projects elsewhere in the world. At least 4 such projects be studied and reported as part of benchmarking exercise.

   (v) At grade below the elevated corridor must be redeveloped into a standard cross sections with adequate lanes, median, cycle tracks, sidewalk, utility ducts etc. Pavement (flexible or rigid) shall be designed as per IRC standards. Bridges and culverts shall be for the required widths and spans as per IRC.

c) At sections where Tunnelsare proposed, following guidelines shall be noted

(i) The Consultant shall prepare design and drawings for tunnels, if required as per the results of feasibility study, as per the relevant specifications of IRC:SP:91/MORT&H and other international specifications.
(ii) The lane configuration of tunnel corridor can be 2/3/4/6 lane depending upon the traffic and segregation of traffic. The provision of utilities, storm water and other communication lines must be part of tunnels
(iii) The consultants shall study the best tunnel projects across the world constructed in similar conditions and replicate the same, the tunnels can be single or multilevel depending upon the ROW availability, traffic need and long term availability plus economical viability

d) The Consultant shall comprehensively study all locations where approach Ramps, interchanges, loops are proposed and prepare layout that are user friendly, safe and provide signal free movements. Laybyes and Facilities for for emergency evacuations are also needed

e) Since the proposed project is in the city, construction of conventional toll plazas may not be feasible, in this regard, the consultant shall study the alternative toll collection systems practices elsewhere in the world and also an innovative way of toll collection. Authority excepts the consultants to come out with a most practical, feasible and technology liked method for toll collection.

f) A dedicated operation and maintenance centre shall be planned for accommodating the traffic control centre, offices for operation and maintenance staff, a trauma centre, a maintenance base or yard with equipment and material for carrying out emergency maintenance, parking for rescue vehicles (cranes, etc.), patrol vehicles, ambulances, rest places for personnel on night shift duty, a restaurant or canteen, etc.

g) All the Elevated corridor facilities, such as carriageway, wayside amenities, toll plazas, operation and maintenance bases, shall be planned with focus on safe and efficient operation of the facilities, the essential features of which shall be complete access control, traffic safety and mobility, smooth toll operation, quick response incident management, and maintaining an acceptable level of service. While doing so, the interest of the local communities, who may suffer from property or community severance, denied access and other adverse environmental fall outs of the Elevated corridor construction, shall be protected. Community consultation shall, therefore, be an essential part of the scope of the consultancy service.

h) An integrated traffic management system will be proposed for improving level of service and increasing safety by (a) allowing for prompt detection and removal of Elevated corridor incidents and vehicle breakdowns; (b) providing accurate and timely incident and delay information to users andeffectively managing peak hour traffic

flow through innovative traffic control devices. The Elevated corridor management system will comprise of closed circuit televisions, variable message signs, weigh-in-motion systems, classified traffic volume count devices, vehicle detector systems, communication systems, central computer systems, ambulances, patrol vehicles etc.

i) Environmental Impact Assessment (EIA), Resettlement Action Plan (RAP) and preparation of documentation for all clearances, such as environment and forest, utility agencies and other Government or local authorities shall be prepared. Providing assistance in obtaining clearances shall be a part of the consultancy services.
j) As the reports submitted by the consultant shall form the basis for preparation of the bidding documents, all the essential elements thereof shall be proposed in various sections/stages of the report. These elements shall include, inter-alia,Design standards for the Elevated corridor.
k) Operation standards including real time traffic information, monitoring, contract, incident management.

l) Safety standards including lighting of appropriate areas (interchanges, toll plazas, wayside amenities, operation base, etc.), safety during maintenance operations/incident management, inclement weather, ventilation and lighting of tunnel (if any).

m) Maintenance standards for all the facilities, appropriate levels of maintenance, timing/frequency of maintenance interventions.

n) Specifications, testing methods and acceptance criteria for design, construction, maintenance and operation.

3.14 Project cost

Preliminary cost estimation of the Elevated corridor based on the alignment and cross-section shall be done. The Consultant shall work out indicative BOQ of various components and prepare rough cost estimates of the Project Highway with a break up of cost for each component separately. To the construction cost so arrived at, the Consultant shall include lumpsum provisions for physical and price contingencies, interest during construction and other financing costs, pre-construction expenses, project management costs etc.
The consultants shall adopt relevant Schedule of Rates of Karnataka Government for all items as par as possible and for those items they are not in SoR or such items the rates may not be on par with market, the consultants shall review other market rates and recommend a derived rate for such items

3.15 Financial analysis and bid process

i. Detailed financial analysis is not required to be undertaken by the Consultant. A separate consultant will be hired for Transaction advisor by BBMP in case the project is implemented through PPP mode. However, the Consultant shall provide the estimated construction costs, operation and maintenance costs, traffic forecast, toll revenues and other revenues etc. as part of its preliminary

financial analysis and appraisal of the Project. The Consultant shall, also provide a preliminary assessment of the
financial viability of the Project with a view to estimating the likely IRR over a concession period of 10 (ten) years, 15 (fifteen) years, 20 (twenty) years 25 (twenty five) years and 30 (thirty) years respectively.

ii. While undertaking the financial analysis and projecting the IRR, the following assumptions shall be adopted:

a. Capital cost shall be adopted as per estimates of construction cost to which 25% (twenty five per cent) shall be added for physical and price contingencies, interest during construction, other financing costs etc;

b. debt equity ratio may be assumed as 70:30;

c. O&M costs may be assumed as per norms of the Authority;

d. the concession period may be fixed by reference to the year in which the projected traffic would exceed the design capacity of the Project Highway; and

e. growth rate of traffic may be assumed at 5% (five per cent) per annum.

iii. The Consultant shall:

a. calculate the NPV and EIRR for the Project. It will undertake sensitivity analysis by identifying the most critical factors and determine their impact on the EIRR, including varying project costs and benefits, implementation period, and combinations of these factors; and

b. conduct a risk analysis (using the Monte Carlo method) by considering the possible values for key variables based on records, and their occurrence probability.

iv. If the IRR of the Project, based on the aforesaid calculations is less than 12% (twelve per cent), an effort should be made to reduce the capital costs in consultation with the Authority. This may be done either by omitting/ modifying some of the proposed structures or by phasing them after a period of seven years or more, such that the IRR reaches a minimum of 12% (twelve per cent).

4. DELIVERABLES

The Consultant shall deliver the following deliverables (the "**Deliverables**") during the course of this Consultancy. The Deliverables shall be so drafted that they could be given to the prospective bidders for guidance in preparation of their bids. Ten hard copies and two soft copies in CDs of all the final reports, drawings, etc. shall be submitted to the Authority. For draft reports only five hard copies and one soft copy in CD shall be submitted to the Authority. The size of drawings shall be A-3 (maximum).

i. Inception Report

On commencement of the Consultancy, the Consultant shall submit an Inception Report. The Inception Report shall include the Consultant's submissions towards understanding of the RFP and the Work Plan. Consultants team mobilization, survey and investigation plana and must cover their overall approach towards the assignment and deliverables

ii. Draft Traffic Management Plan

This report is the culmination of stage-1 of the assignment, the report must include the findings, recommendations on short, medium and long term solutions, their timelines and exact workable proposals. The reprott must include the following

A. Report on available data and plans

a. Summary of all the available past reports, data and development plans made, solutions proposed, their status and merits/de merits of same

b. Works undertaken by various stakeholders in city, the work status and their impediments on current and future traffic of city

B. Report on after Traffic Survey

c. The Consultant shall submit a Report on the classified traffic volume count giving an analysis of hourly and daily variations
d. Report and traffic forecast as per clause 3.2

C. Development Proposals

e. The Consultant shall submit a Report on the proposed developments for the corridors under study, the development proposals shall be separated under short-, medium- and long-term solutions

f. The development proposals must have been selected among various possible alternative options studies, the proposed options must be practical, implementable and futuristic in nature.

g. The development proposals must be marked in drawings with start point end point, lengths, widths and all other technical futures, their possible implementation periods, preliminary reasonable project costs, method of possible implementation, possible clearances required and with all other necessary information

iii. Final Traffic Management Plan

The consultants shall submit the final Traffic Management Plan after incorporation of comments, suggestions received from BBMP/GoK

iv. Draft Comprehensive Road Infrastructure Plan

A. Draft-Feasibility Report

The consultant shall submit the Draft-feasibility report, which shall include the following:

(1) Investigation Reports

(a) Report on traffic survey and demand assessment

(b) Soil, geotechnical and drainage report as required for preliminary design of the

(2) Preliminary designs

Preliminary designs of the Project corridors consistent with the existing facility and the additional requirements including layout of elevated corridors, tunnels, and inter-changes with ramps, road widenings, service roads, at grade road development works etc.,

(3) Sets of General Arrangement Drawings

A strip plan showing the location and layout of the entire Elevated corridor,tunnels, and inter-changes with ramps, road widenings, service roads, at grade road development works etc., alignment including the facilities

A set of Alignment Plan with typical L-sections, cross-sections of the Elevated corridor, bridges, culverts, interchange loops and ramps, overpasses/underpasses and approaches which can be used for the purpose of bidding.

Indicative GADs of structures.

Traffic circulation tentative plans for interchanges, facilities, access/cross roads.

(3) Preliminary costing

(a) Indicative BOQ.
(b) Preliminary Cost Estimate for construction of Project Highway.
(c) Total Project Cost

B. Land Plan Schedules

a. Land Plan schedules for acquisition of land for Elevated corridor,tunnels, and inter-changes with ramps, road widenings, service roads, at grade road development works etc., and land required for facilities such as toll plazas, truck laybyes, bus bays, etc. the land plan schedules shall be prepared as per the procedure and policy of state Govt. the details of land to be acquired with survey numbers,

property owners, extent, hissa, type etc., to be collected. Assessment of structures and buildings to be acquired, its valuations etc. as required shall be prepared.

.

D. Utility Relocation Plans

Utility-wise preliminary plans together with approximate costs for shifting/relocation shall be provided.

E. Reports on Environment and Social impact assessment

The Consultant shall submit reports on social impact assessment (Refer para 3.11) and environment impact assessment (Refer para 3.12).

F. Report on indicative GAD of Structures

The Consultant shall submit report on indicative GAD of bridges, ROBs/RUBs, grade separators and interchanges, elevated corridors, tunnels etc.,

v. Final Comprehensive Road Infrastructure Plan

A. Final Detailed Feasibility Report

The Final Detailed Feasibility Report of the Project shall include the following:

(1) Sets of drawings

a) A strip plan showing the location and layout of the entire Elevated corridor alignment including the facilities

b) A set of detailed Alignment Plan, L-sections, cross-sections of the Elevated corridor, tunnels, bridges, culverts, grade separators, interchange loops and ramps, overpasses/underpasses and approaches which can be used for the purpose of bidding

c) Layout of facilities and their approach/access from the Elevated corridor

d) Indicative GADs of structures

e) Traffic circulation plans for interchanges, facilities, access/cross roads

f) A land plan schedule for additional acquisition of land required for structures, toll plazas, rest/service areas, control centers, trauma centers etc. over and above ROW of alignment fixed.

(3) *Investigation Reports*

(a) Report on traffic survey and demand assessment (Refer para 3.2).

(b) Soil, geotechnical and drainage report as required for preliminary design of the project

(4) *Preliminary designs*

Preliminary designs of the Project Highway including service roads, consistent with the existing facility and the additional requirements including:

(a) Traffic and toll forecasting for 10 (ten), 15 (fifteen), 20 (twenty), 25 (twenty five) and 30 (thirty) years.

(b) Preliminary pavement design for Elevated corridor along with typical cross-sections covering the following:

(i) Cross-sectional element and geometry

(ii) Traffic and toll forecasting

(iii) Preliminary Drainage assessment and design

(iv) Preliminary design and GADs for structures

(v) Traffic operation and safety plan

(vi) Physical facilities necessary for Advanced Traffic Management System

(vii) Operation and maintenance system

i Preliminary layout of, grade separators and inter-changes with ramps.

(4) Preliminary costing

(d) Indicative BOQ.

(e) Preliminary Cost Estimate for construction of Project Highway.

(f) Total Project Cost (Refer paras 3.14 and 3.15).

(5) Implementation schedule

(a) Construction period.

(b) Likely delays, if any, on account of land acquisition.

vi. Schedules of Concession Agreement

The Consultant shall separately provide Schedules A, B, C, D, G, H and K of the Concession Agreement for the Project Highway with all supporting documentation relating to these Schedules. Explanation of the specific requirements for the Project Highway is given in para 5 below.

4.5 Financial analysis

A preliminary financial assessment of the Project indicating the likely IRR for a 10 (ten) year, 15 (fifteen) year, 20 (twenty) year, 25 (twenty five) year and

30 (thirty) year concession period respectively (Refer para 3.15).

The Consultant shall, based on the assumptions specified in paragraph 3.15, indicate the likely viability gap funding for the project. In case the viability gap funding projected in the Feasibility Report exceeds the projection in the Pre-feasibility Report by more than 10% (ten per cent) of the capital costs, a deduction of 10% (ten per cent) of the Agreement Value shall be made from the payment due to the Consultant. Such deduction shall be deemed to be mutually agreed genuine pre-estimated compensation and damages suffered by the Authority on account of inaccurate projections leading to higher costs.

4.6 Assistance during bid process and Post award queries

The Consultant shall provide the required assistance to the financial consultant and the legal adviser in preparation of bid documents. The Consultant shall also participate in Pre-bid Conferences and assist in preparation of answers to

the Bidders' queries on technical aspects of the Project Highway and Bid Documents.

5. TIME AND PAYMENT SCHEDULE

5.1 The total duration for preparation of the Detailed Feasibility Report and Schedules to the Concession Agreement shall be 36 (Thirty-Six) weeks, excluding the time taken by the Authority in providing the requisite documents or in conveying its comments on the Draft Feasibility Report. The Consultant shall deploy itsKey Personnel as per the Deployment of Personnel proposed. Intermittent services will be required beyond the 24th (twenty fourth) week and until the end of 50 (fifty) weeks or 2 (two) months after the signing of the Concession Agreement, whichever is earlier. The man-days required for the intermittent services shall be provided by the Consultant as per the Agreement.

5.2 The payment shall be made to the consultant on phase wise, for Phase-1 as outlined in ToR a lumpsum payment shall be made in stages of submission, for Phase-2 work, the payment shall be made on per KM of roads considered for assignment in stages.

The consultants shall quote a lumpsum for Phase-1 of the study, however for Phase-2 study, the consultant shall quote amount per km for elevated corridor, Tunnel corridor, at grade improvement separately.

5.3 Time schedule for important Deliverables (the "**Key Dates**") of the Consultancy and the payment schedule linked to the specified Deliverables is given below:

Key Date No.	Description of Deliverables	Week No.	Payment
	PHASE-1		
KD1	Inception Report	2	10%
KD2	Report on Draft Traffic Management Plan	8	50%

KD3	Report on Final Traffic Management Plan	10	40%
	Total phase-1		100%
	PHASE-2		
KD4	Report on Draft Comprehensive Road Infrastructure Plan	28	40%
KD5	Report on Schedules of Concession Agreement	30	10%
KD6	Report on Final Comprehensive Road Infrastructure Plan	36	30%
KD7	Completion of Services including assistance during Bid Process	40#	10%
	Total phase-2		100%

Excludes the time taken by the Authority in providing its comments on Reports, approvals and delay in tender process. If the tender is not floated or not finalized or project is shelved for reasons best known to Authority, the KD7 stage deemed completed at the expiry of 72 weeks

5.4 The TOR for the Consultant envisages assistance in the process of public hearings, etc. in respect of the Environment Impact Assessment (EIA) of the Project Highway specified in para 3.12. In the event that the process cannot be completed within the period specified herein for completion of Final Feasibility Report, the EIA Report may be completed and submitted to the Authority within an extended period of 6 (six) weeks after submission of the Feasibility Report.

5.5 Mobilization Advance upto 10% (ten per cent) of the total Agreement Value shall be paid on request against Bank Guarantee of a Scheduled Bank.

iii MEETINGS

The Authority may review with the Consultant, any or all of the documents and advice forming part of the Consultancy, in meetings and conferences which will be held in Bangalore at the Authority's office. The Elevated corridor may also pass on the exiting BOT stretches of NHAI, hence the Consultant may be required to attend/make presentations to the various central Govt. authorities. Further, the Consultant may be required to attend meetings and conferences with pre-qualified Bidders or the Selected Bidder. The expenses towards attending such meetings during the period of Consultancy, including travel costs and *per diem*, shall be reimbursed in accordance with the Financial Proposal contained in Form–2 of Appendix-II of the RFP. The days required to be spent in New Delhi shall be computed at the rate of 8 (eight) man hours a day in case of an outstation Consultant.

iv CONSULTANCY TEAM

The Consultant shall form a multi-disciplinary team (the "**Consultancy Team**") for undertaking this assignment. The following Key Personnel whose experience and responsibilities are briefly described herein would be considered for evaluation of the Technical Proposal. Other expertise such as that required for financial analysis, pavement design, material investigation characterization, quantity survey, social impact assessment etc. for the Project Highway shall be included in the Team either through the Key Personnel

specified below or through other Professional Personnel, as necessary.

Sl.no.	Position	Qualification	Experience	Criteria
1	Senior Highway Engineer – cum - Team leader	Graduate in Civil Engineering and Post Graduate in Transportation Engg.	15 years	He should have led the feasibility study teams for three Eligible Assignments.
2	Senior Transportation planner/ Engineer	Post Graduate in Traffic and/ or Transportation Engineering/	10 years	He should have worked as a Traffic/ Transportation Engineer/ Planner for two Eligible Assignments.
3	Highway Design Engineer	Graduate in Civil Engineering and Post Graduate in HighwayEngg.	12 years	He should have worked as a Highway Design Engineer/ Planner for two Eligible Assignments.
4	Traffic Planner	Post Graduate in Traffic and/ or Transportation Engineering	10 years	He should have worked as a Traffic/ Transportation Engineer/ Planner for two Eligible Assignments.
5	Bridge Engineer	Graduate in Civil Engineering and Post-Graduate in Structural Engineering	10 years	He should have worked as a Bridge Engineer for twoEligible Assignments.
6	Tunnel Engineer	Graduate in Civil Engineering and DesirablyPost-Graduate in Structural Engineering	10 years	He should have worked as a Tunnel Engineer for one Eligible Assignments.
7	Road Safety Expert	Graduate in Civil Engineering and Post Graduate in Traffic and/ or Transportation Engineering/ Planning, having Road safety training	10 years	He should have worked as a Road Safety Expert for two Eligible Assignments.
8	Geotechnical Engineer	Graduate in Civil Engineering and Post - graduate in Structural / Geotechnical Engineering	10 years	He should have worked as a Geotechnical Engineer for two Eligible Assignments.
9	Survey Engineer	Graduate/Diploma in Civil Engineering	10 years	He should have worked as Surveyor for two Eligible Assignments.
10	Pavement Engineer	Graduate in Civil Engineering and Post Graduate in	10 years	He should have worked as a pavementEngineer for two Eligible

		HighwayEngg.		Assignments.
11	Financial Analyst	Post Graduate in Commerce/ Chartered Accountant or equivalent	8 years	He should have undertaken financial analysis and modelling for two Eligible Assignments.
12	Environmental Expert	Graduate/Bachelor in Civil Engg. and Masters in Environmental Science / Engineering or equivalent	10 years	He should have worked as an environmental engineer for two Eligible Assignments.

a. Its mandatory that the Consultant shall have design Office in Bengaluru for efficient and coordinated performance of its Services. All the Key Personnel shall be deployed at this office during the entire duration of assignment as specified in the Manning Schedule forming part of the Agreement.

b. the authorised officials of the Authority may visit the Consultant's Project Office any time during office hours for inspection and interaction with the Consultant's Personnel. It is not expected of the Consultant to carry out the operations from the Head/Home Office located outside Bengaluru.

6. REPORTING

6.1 The Consultant will work closely with the Authority. The Authority might set up a technical advisory committee (TAC) to enable conduct of this assignment. A designated member from of the Authority will be responsible for the overall coordination and project development. He will play a coordinating role in dissemination of the Consultant's outputs, facilitating discussions, and ensuring required reactions and responses to the Consultant.

6.2 The Consultant may prepare Issue Papers highlighting issues that could become critical for the timely completion of the Project and that require attention from the Authority.

6.3 The Consultant will make a presentation on the inception report for discussion with the TAC at a meeting. This will be a working document. The Consultant is required to prepare and submit a monthly report that includes and describes ,inter alia, general progress to date; data and reports obtained and reviewed, conclusions to date, if any; concerns about availability of, or access to, data, analyses, reports; questions regarding the TOR or any other matters regarding work scope and related issues; and so on. The Consultants' work on the TOR tasks should continue while the report is under consideration and is being discussed.

6.4 Regular communication with the TAC and the authority is required in addition to all key communications. This may take the form of telephone/ teleconferencing, emails, faxes, and occasional meetings.

6.5 The Deliverables will be submitted as per schedule provided in this RFP.

7. DATA AND SOFTWARE TO BE MADE AVAILABLE BY THE AUTHORITY

The Authority shall provide to the Consultant the following:

(a) Access to all departments/stake holders for obtaining relevant data or reports.

(b) A copy of the earlier available reports, policies etc.,

(c) A copy of the Model Concession Agreement, if available

.

Available data as may be required by the Consultant will be provided by the Authority on request. The Nodal Officer designated by the Authority shall facilitate handing over of such information to the Consultant.

8. COMPLETION OF SERVICES

8.1 All the study outputs including primary data shall be compiled, classified and submitted by the Consultant to the Authority in soft form apart from the reports indicated in the Deliverables (para 4). The study outputs shall remain the property of the Authority and shall not be used for any purpose other than that intended under these Terms of Reference without the permission of the Authority. The Consultancy shall stand completed on acceptance by the Authority of all the Deliverables of the Consultant and execution of the Concession Agreement or 36 (thirtysix) weeks from the Effective Date, whichever is earlier. The Authority shall issue a certificate to that effect. The Consultancy shall in any case be deemed to be completed upon expiry of 1 (one) year from the Effective Date, unless extended by mutual consent of the Authority and the Consultant.

8.2 10% (ten per cent) of the Agreement Value has been earmarked as lump sum payment to be made to the Consultant upon execution of the ConcessionAgreement (the "Lump Sum Payment"). In consideration of the Lump SumPayment, the Consultant shall provide such services as may be required by the Authority for concluding the Bid Process and execution of the ConcessionAgreement. In the event the Concession Agreement does not get executed within one year of the Effective Date, the Consultancy shall stand completed as specified in Clause 11.1 above

SECTION VI: CONTRACT FOR CONSULTANT'S SERVICES

between

_____

[Name of Client]

and

_____

[Name of Consultants]

Dated :

CONTENTS **Page no.**

1. General

1.1 Definitions and Interpretation
1.2 Relation between the Parties
1.3 Rights and Obligations
1.4 Governing law and jurisdiction
1.5 Language
1.6 Table of contents and headings
1.7 Notices
1.8 Location
1.9 Authority of Member-in-Charge
1.10 Authorised representatives
1.11 Taxes and duties

2. Commencement, Completion and Termination of Agreement

2.1 Effectiveness of Agreement
2.2 Commencement of Services
2.3 Termination of Agreement for failure to commence Services
2.4 Expiration of Agreement
2.5 Entire Agreement
2.6 Modification of Agreement
2.7 Force Majeure
2.8 Suspension of Agreement
2.9 Termination of Agreement

3. Obligations of the Consultant

3.1 General
3.2 Conflict of Interest
3.3 Confidentiality
3.4 Liability of the Consultant
3.5 Insurance to be taken out by the Consultant
3.6 Accounting, inspection and auditing
3.7 Consultant's actions requiring the Authority's prior approval
3.8 Reporting obligations
3.9 Documents prepared by the Consultant to be the property of the Authority
3.10 Equipment and materials furnished by the Authority
3.11 Providing access to the Project Office and Personnel
3.12 Accuracy of Documents

4. Consultant's Personnel and Sub-Consultant

4.1 General
4.2 Deployment of Personnel
4.3 Approval of Personnel
4.4 Substitution of Key Personnel
4.5 Working hours, overtime, leave etc.
4.6 Resident Team Leader and Project Manager
4.7. Sub-Consultants

5. Obligations of the Authority

5.1 Assistance in clearances etc.
5.2 Access to land and property
5.3 Change in Applicable Law
5.4 Payment

6. Payment to the Consultant

6.1 Cost estimates and Agreement Value
6.2 Currency of payment
6.3 Mode of billing and payment

7. Liquidated damages and penalties

7.1 Performance Security
7.2 Liquidated Damages
7.3 Penalty for deficiency in Services

8. Fairness and Good Faith

8.1 Good Faith
8.2 Operation of the Agreement

9. Settlement of Disputes

9.1 Amicable settlement
9.2 Dispute resolution
9.3 Conciliation
9.4 Arbitration

ANNEXES

Annex 1: Terms of Reference
Annex 2: Deployment of Personnel
Annex 3: Estimate of Personnel Costs
Annex 4: Approved Sub-Consultant(s)
Annex 5: Cost of Services

Annex 6: Payment Schedule
Annex 7: Bank Guarantee for Performance Security

AGREEMENT

Preparation of Feasibility Report for _____

AGREEMENT No._____

This AGREEMENT (hereinafter called the "**Agreement**") is made on the _____ day of the month of _____ 2***, between, on the one hand, the BBMP, Govt. of Karnataka acting through the …….. (hereinafter called the "**Authority**" which expression shall include their respective successors and permitted assigns, unless the context otherwise requires) and, on the other hand, _____ (hereinafter called the "**Consultant**" which expression shall include their respective successors and permitted assigns).

WHEREAS

(A) The Authority vide its Request for Proposal for Preparation of Feasibility Report (hereinafter called the "**Consultancy**") for _____ (hereinafter called the "**Project**");

(B) the Consultant submitted its proposals for the aforesaid work, whereby the Consultant represented to the Authority that it had the required professional skills, and in the said proposals the Consultant also agreed to provide the Services to the Authority on the terms and conditions as set forth in the RFP and this Agreement; and

(C) the Authority, on acceptance of the aforesaid proposals of the Consultant, awarded the Consultancy to the Consultant vide its Letter of Award dated _____ (the "**LOA**"); and

(D) in pursuance of the LOA, the parties have agreed to enter into this Agreement.

NOW, THEREFORE, the parties hereto hereby agree as follows:

1. GENERAL

1.1 Definitions and Interpretation

1.1.1 The words and expressions beginning with capital letters and defined in this Agreement shall, unless the context otherwise requires, have the meaning hereinafter respectively assigned to them:

(a) "**Additional Costs**" shall have the meaning set forth in Clause 6.1.2;

(b) "**Agreement**" means this Agreement, together with all the Annexes;

(c) "**Agreement Value**" shall have the meaning set forth in Clause 6.1.2;

(d) "**Applicable Laws**" means the laws and any other instruments having the force of law in India as they may be issued and in force from time to time;

(e) "**Confidential Information**" shall have the meaning set forth in Clause 3.3;

(f) "**Conflict of Interest**" shall have the meaning set forth in Clause 3.2 read with the provisions of RFP;

(g) "**Dispute**" shall have the meaning set forth in Clause 9.2.1;

(h) "**Effective Date**" means the date on which this Agreement comes into force and effect pursuant to Clause 2.1;

(i) "**Expatriate Personnel**" means such persons who at the time of being so hired had their domicile outside India;

(j) "**Government**" means the Government of India;

(k) "**INR**, **Re**. or **Rs**." means Indian Rupees;

(l) "**Member**", in case the Consultant consists of a joint venture or consortium of more than one entity, means any of these entities, and "Members" means all of these entities;

(m) "**Party**" means the Authority or the Consultant, as the case may be, and Parties means both of them;

(n) "**Personnel**" means persons hired by the Consultant or by any Sub-Consultant as employees and assigned to the performance of the Services or any part thereof;

(o) "**Resident Personnel**" means such persons who at the time of being so hired had their domicile inside India;

(p) "**RFP**" means the Request for Proposal document in response to which the Consultant's proposal for providing Services was accepted;

(q) "**Services**" means the work to be performed by the Consultant pursuant to this Agreement, as described in the Terms of Reference hereto;

(r) "**Sub-Consultant**" means any entity to which the Consultant subcontracts any part of the Services in accordance with the provisions of Clause 4.7; and

(s) "**Third Party**" means any person or entity other than the Government, the Authority, the Consultant or a Sub-Consultant.

All terms and words not defined herein shall, unless the context otherwise requires, have the meaning assigned to them in the RFP.

1.1.2 The following documents along with all addenda issued thereto shall be deemed to form and be read and construed as integral parts of this Agreement and in case of any contradiction between or among them the priority in which a document would prevail over another would be as laid down below beginning from the highest priority to the lowest priority:

(a) Agreement;

(b) Annexes of Agreement;

(c) RFP; and

(d) Letter of Award.

1.2 Relation between the Parties

Nothing contained herein shall be construed as establishing a relation of master and servant or of agent and principal as between the Authority and the Consultant. The Consultant shall, subject to this Agreement, have complete charge of Personnel performing the Services and shall be fully responsible for the Services performed by them or on their behalf hereunder.

1.3 Rights and obligations

The mutual rights and obligations of the Authority and the Consultant shall be as set forth in the Agreement, in particular:

(a) the Consultant shall carry out the Services in accordance with the provisions of the Agreement; and

(b) the Authority shall make payments to the Consultant in accordance with the provisions of the Agreement.

1.4 Governing law and jurisdiction

Section 7.02 This Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the courts at Bangaluru shall have exclusive jurisdiction over matters arising out of or relating to this Agreement.

1.5 Language

Section 7.03 All notices required to be given by one Party to the other Party and all other communications, documentation and proceedings which are in any way relevant to this Agreement shall be in writing and in English language.

1.6Table of contents andheadings

The table of contents, headings or sub-headings in this Agreement are for convenience of reference only and shall not be used in, and shall not affect, the construction or interpretation of this Agreement.

1.7 Notices

Section 7.04 Any notice or other communication to be given by any Party to the other Party under or in connection with the matters contemplated by this Agreement shall be in writing and shall:

(a) in the case of the Consultant, be given by facsimile or e-mail and by letter delivered by hand to the address given and marked for attention of the Consultant's Representative set out below in Clause 1.10 or to such other person as the Consultant may from time to time designate by notice to the Authority; provided that notices or other communications to be given to an address outside ***** may, if they are subsequently confirmed by sending a copy thereof by registered acknowledgement due, air mail or by courier, be sent by facsimile or e-mail to the number as the Consultant may from time to time specify by notice to the Authority;

(b) in the case of the Authority, be given by facsimile or e-mail and by letter delivered by hand and be addressed to the Authority with a copy delivered to the Authority Representative set out below in Clause 1.10 or to such other person as the Authority may from time to time designate by notice to the Consultant; provided that if the Consultant does not have an office in the National Capital Region it may send such notice by facsimile or e-mail and by registered acknowledgement due, air mail or by courier; and

(c) any notice or communication by a Party to the other Party, given in accordance herewith, shall be deemed to have been delivered when in the normal course of post it ought to have been delivered and in all other cases, it shall be deemed to have been delivered on the actual date and time of delivery; provided that in the case of facsimile or e-mail, it shall be deemed to have been delivered on the working days following the date of its delivery.

1.8 Location

The Services shall be performed at the site of the Project in accordance with the provisions of RFP and at such locations as are incidental thereto, including the offices of the Consultant.

1.9 Authority of Member-in-charge

In case the Consultant consists of a consortium of more than one entity, the Parties agree that the Lead Member shall act on behalf of the Members in exercising all the Consultant's rights and obligations towards the Authority under this Agreement, including without limitation the receiving of instructions and payments from the Authority.

1.10 Authorised Representatives

1.10.1 Any action required or permitted to be taken, and any document required or permitted to be executed, under this Agreement by the Authority or the Consultant, as the case may be, may be taken or executed by the officials specified in this Clause 1.10.

1.10.2 The Authority may, from time to time, designate one of its officials as the Authority Representative. Unless otherwise notified, the Authority Representative shall be:

****

****

****

****

Tel: ******** Fax: ********* E-mail: *********

1.10.3 The Consultant may designate one of its employees as Consultant's Representative. Unless otherwise notified, the Consultant's Representative shall be:

Tel: ----------

Mobile: ----------

Fax: ----------

Email: ----------

1.11 Taxes and duties

Unless otherwise specified in the Agreement, the Consultant shall pay all such taxes, duties, fees and other impositions as may be levied under the Applicable Laws and the Authority shall perform such duties in regard to the deduction of such taxes as may be lawfully imposed on it.

2. COMMENCEMENT, COMPLETION AND TERMINATION OF AGREEMENT

2.1 Effectiveness of Agreement

This Agreement shall come into force and effect on the date of this Agreement (the "**Effective Date**").

2.2 Commencement of Services

The Consultant shall commence the Services within a period of 7 (seven) days from the Effective Date, unless otherwise agreed by the Parties.

2.3 Termination of Agreement for failure to commence Services

If the Consultant does not commence the Services within the period specified in Clause 2.2 above, the Authority may, by not less than 2 (two) weeks' notice to the Consultant, declare this Agreement to be null and void, and in the event of such a declaration, the Bid Security of the Consultant shall stand forfeited.

2.4 Expiration of Agreement

Unless terminated earlier pursuant to Clauses 2.3 or 2.9 hereof, this Agreement shall, unless extended by the Parties by mutual consent, expire upon the earlier of (i) expiry of a period of 90 (ninety) days after the delivery of the final deliverable to the Authority; and (ii) the expiry of 1 (one) year from the Effective Date. Upon Termination, the Authority shall make payments of all amounts due to the Consultant hereunder.

2.5 Entire Agreement

2.5.1 This Agreement and the Annexes together constitute a complete and exclusive statement of the terms of the agreement between the Parties on the subject hereof, and no amendment or modification hereto shall be valid and effective unless such modification or amendment is agreed to in writing by the Parties and duly executed by persons especially empowered in this behalf by the respective Parties. All prior written or oral understandings, offers or other communications of every kind pertaining to this Agreement are abrogated and withdrawn; provided, however, that the obligations of the Consultant arising out of the provisions of the RFP shall continue to subsist and shall be deemed to form part of this Agreement.

2.5.2 Without prejudice to the generality of the provisions of Clause 2.5.1, on matters not covered by this Agreement, the provisions of RFP shall apply.

2.6 Modification of Agreement

Modification of the terms and conditions of this Agreement, including any modification of the scope of the Services, may only be made by written agreement between the Parties. Pursuant to Clauses 4.2.3 and 6.1.3 hereof, however, each Party shall give due

consideration to any proposals for modification made by the other Party.

2.7 Force Majeure

2.7.1 Definition

(a) For the purposes of this Agreement, "**Force Majeure**" means an event which is beyond the reasonable control of a Party, and which makes a Party's performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible in the circumstances, and includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial action (except where such strikes, lockouts or other industrial action are within the power of the Party invoking Force Majeure to prevent), confiscation or any other action by government agencies.

(b) Force Majeure shall not include (i) any event which is caused by the negligence or intentional action of a Party or such Party's Sub-Consultant or agents or employees, nor (ii) any event which a diligent Party could reasonably have been expected to both (A) take into account at the time of the conclusion of this Agreement, and (B) avoid or overcome in the carrying out of its obligations hereunder.

(c) Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.

2.7.2 No breach of Agreement

The failure of a Party to fulfil any of its obligations hereunder shall not be considered to be a breach of, or default under, this Agreement insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event has taken all reasonable precautions, due care and reasonable alternative measures, all with the objective of carrying out the terms and conditions of this Agreement.

2.7.3 Measures to be taken

(a) A Party affected by an event of Force Majeure shall take all reasonable measures to remove such Party's inability to fulfil its obligations hereunder with a minimum of delay.

(b) A Party affected by an event of Force Majeure shall notify the other Party of such event as soon as possible, and in any event not later than 14 (fourteen) days following the occurrence of such event, providing evidence of the nature and cause of such event, and shall similarly give notice of the restoration of normal conditions as soon as possible.

(c) The Parties shall take all reasonable measures to minimise the consequences of any event of Force Majeure.

2.7.4 Extension of time

Any period within which a Party shall, pursuant to this Agreement, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

2.7.5 Payments

During the period of its inability to perform the Services as a result of an event of Force Majeure, the Consultant shall be entitled to be reimbursed for additional costs reasonably and necessarily incurred by it during such period for the purposes of the Services and in reactivating the Services after the end of such period.

2.7.6 Consultation

Not later than 30 (thirty) days after the Consultant has, as the result of an event of Force Majeure, become unable to perform a material portion of the Services, the Parties shall consult with each other with a view to agreeing on appropriate measures to be taken in the circumstances.

2.8 Suspension of Agreement

The Authority may, by written notice of suspension to the Consultant, suspend all payments to the Consultant hereunder if the Consultant shall be in breach of this Agreement or shall fail to perform any of its obligations under this Agreement, including the carrying out of the Services; provided that such notice of suspension (i) shall specify the nature of the breach or failure, and (ii) shall provide an opportunity to the Consultant to remedy such breach or failure within a period not exceeding 30 (thirty) days after receipt by the Consultant of such notice of suspension.

2.9 Termination of Agreement

2.9.1 By the Authority

The Authority may, by not less than 30 (thirty) days' written notice of termination to the Consultant, such notice to be given after the occurrence of any of the events specified in this Clause 2.9.1, terminate this Agreement if:

(a) the Consultant fails to remedy any breach hereof or any failure in the performance of its obligations hereunder, as specified in a notice of suspension pursuant to Clause 2.8 hereinabove, within 30 (thirty) days of receipt of such notice of suspension or within such further period as the Authority may have subsequently granted in writing;

(b) the Consultant becomes insolvent or bankrupt or enters into any agreement with its creditors for relief of debt or take advantage of any law for the benefit of debtors or goes into liquidation or receivership whether compulsory or voluntary;

(c) the Consultant fails to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause 9 hereof;

(d) the Consultant submits to the Authority a statement which has a material effect on the rights, obligations or interests of the Authority and which the Consultant knows to be false;

(e) any document, information, data or statement submitted by the Consultant in its Proposals, based on which the Consultant was considered eligible or successful, is found to be false, incorrect or misleading;

(f) as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than 60 (sixty) days; or

(g) the Authority, in its sole discretion and for any reason whatsoever, decides to terminate this Agreement.

2.9.2 By the Consultant

The Consultant may, by not less than 30 (thirty) days' written notice to the Authority, such notice to be given after the occurrence of any of the events specified in this Clause 2.9.2, terminate this Agreement if:

(a) the Authority fails to pay any money due to the Consultant pursuant to this Agreement and not subject to dispute pursuant to Clause 9 hereof within 45 (forty five) days after receiving written notice from the Consultant that such payment is overdue;

(b) the Authority is in material breach of its obligations pursuant to this Agreement and has not remedied the same within 45 (forty five) days (or such longer period as the Consultant may have subsequently granted in writing) following the receipt by the Authority of the Consultant's notice specifying such breach;

(c) as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than 60 (sixty) days; or

(d) the Authority fails to comply with any final decision reached as a result of arbitration pursuant to Clause 9 hereof.

2.9.3 Cessation of rights and obligations

Upon termination of this Agreement pursuant to Clauses 2.3 or 2.9 hereof, or upon expiration of this Agreement pursuant to Clause 2.4 hereof, all rights and obligations of the Parties hereunder shall cease, except (i) such rights and obligations as may have accrued on the date of termination or expiration, or which expressly survive such Termination; (ii) the obligation of confidentiality set forth in Clause 3.3 hereof; (iii) the Consultant's obligation to permit inspection, copying and auditing of such of its accounts and records set forth in Clause 3.6, as relate to the Consultant's Services provided under

this Agreement; and (iv) any right or remedy which a Party may have under this Agreement or the Applicable Law.

2.9.4 Cessation of Services

Upon termination of this Agreement by notice of either Party to the other pursuant to Clauses 2.9.1 or 2.9.2 hereof, the Consultant shall, immediately upon dispatch or receipt of such notice, take all necessary steps to bring the Services to a close in a prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum. With respect to documents prepared by the Consultant and equipment and materials furnished by the Authority, the Consultant shall proceed as provided respectively by Clauses 3.9 or 3.10 hereof.

2.9.5 Payment upon Termination

Upon termination of this Agreement pursuant to Clauses 2.9.1 or 2.9.2 hereof, the Authority shall make the following payments to the Consultant (after offsetting against these payments any amount that may be due from the Consultant to the Authority):

(i) remuneration pursuant to Clause 6 hereof for Services satisfactorily performed prior to the date of termination;

(ii) reimbursable expenditures pursuant to Clause 6 hereof for expenditures actually incurred prior to the date of termination; and

(iii) except in the case of termination pursuant to sub-clauses (a) through (e) of Clause 2.9.1 hereof, reimbursement of any reasonable cost incidental to the prompt and orderly termination of the Agreement including the cost of the return travel of the Consultant's personnel.

2.9.6Disputes about Events of Termination

If either Party disputes whether an event specified in Clause 2.9.1 or in Clause 2.9.2 hereof has occurred, such Party may, within 30 (thirty) days after receipt of notice of termination from the other Party, refer the matter to arbitration pursuant to Clause 9 hereof, and this Agreement shall not be terminated on account of such event except in accordance with the terms of any resulting arbitral award.

3. OBLIGATIONS OF THE CONSULTANT

3.1 General

3.1.1 Standards of Performance

The Consultant shall perform the Services and carry out its obligations hereunder with all due diligence, efficiency and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advanced technology and safe and effective equipment,

machinery, materials and methods. The Consultant shall always act, in respect of any matter relating to this Agreement or to the Services, as a faithful adviser to the Authority, and shall at all times support and safeguard the Authority's legitimate interests in any dealings with Sub-Consultants or Third Parties.

3.1.2 Terms of Reference

The scope of services to be performed by the Consultant is specified in the Terms of Reference (the "**TOR**") at Annex-1 of this Agreement. The Consultant shall provide the Deliverables specified therein in conformity with the time schedule stated therein.

3.1.3 Applicable Laws

The Consultant shall perform the Services in accordance with the Applicable Laws and shall take all practicable steps to ensure that any Sub-Consultant, as well as the Personnel and agents of the Consultant and any Sub-Consultant, comply with the Applicable Laws.

3.2 Conflict of Interest

3.2.1 The Consultant shall not have a Conflict of Interest and any breach hereof shall constitute a breach of the Agreement.

3.2.2 Consultant and Affiliates not to be otherwise interested in the Project

The Consultant agrees that, during the term of this Agreement and after its termination, the Consultant or any Associate thereof and any entity affiliated with the Consultant, as well as any Sub-Consultant and any entity affiliated with such Sub-Consultant, shall be disqualified from providing goods, works, services, loans or equity for any project resulting from or closely related to the Services and any breach of this obligation shall amount to a Conflict of Interest; provided that the restriction herein shall not apply after a period of five years from the completion of this assignment or to consulting assignments granted by banks/ lenders at any time; provided further that this restriction shall not apply to consultancy/ advisory services provided to the Authority in continuation of this Consultancy or to any subsequent consultancy/ advisory services provided to the Authority in accordance with the rules of the Authority. For the avoidance of doubt, an entity affiliated with the Consultant shall include a partner in the Consultant's firm or a person who holds more than 5% (five per cent) of the subscribed and paid up share capital of the Consultant, as the case may be, and any Associate thereof.

3.2.3 Prohibition of conflicting activities

Neither the Consultant nor its Sub-Consultant nor the Personnel of either of them shall engage, either directly or indirectly, in any of the following activities:

(a) during the term of this Agreement, any business or professional activities which would conflict with the activities assigned to them under this Agreement;

(b) after the termination of this Agreement, such other activities as may be specified in the Agreement; or

(c) at any time, such other activities as have been specified in the RFP as Conflict of Interest.

3.2.4 Consultant not to benefit from commissions, discounts, etc.

The remuneration of the Consultant pursuant to Clause 6 hereof shall constitute the Consultant's sole remuneration in connection with this Agreement or the Services and the Consultant shall not accept for its own benefit any trade commission, discount or similar payment in connection with activities pursuant to this Agreement or to the Services or in the discharge of its obligations hereunder, and the Consultant shall use its best efforts to ensure that any Sub-Consultant, as well as the Personnel and agents of either of them, similarly shall not receive any such additional remuneration.

3.2.5 The Consultant and its Personnel shall observe the highest standards of ethics and shall not have engaged in and shall not hereafter engage in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the "**Prohibited Practices**")**.** Notwithstanding anything to the contrary contained in this Agreement, the Authority shall be entitled to terminate this Agreement forthwith by a communication in writing to the Consultant, without being liable in any manner whatsoever to the Consultant, if it determines that the Consultant has, directly or indirectly or through an agent, engaged in any Prohibited Practices in the Selection Process or before or after entering into of this Agreement. In such an event, the Authority shall forfeit and appropriate the performance security, if any, as mutually agreed genuine pre-estimated compensation and damages payable to the Authority towards, *inter alia*, the time, cost and effort of the Authority, without prejudice to the Authority's any other rights or remedy hereunder or in law.

3.2.6 Without prejudice to the rights of the Authority under Clause 3.2.5 above and the other rights and remedies which the Authority may have under this Agreement, if the Consultant is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any Prohibited Practices, during the Selection Process or before or after the execution of this Agreement, the Consultant shall not be eligible to participate in any tender or RFP issued during a period of 2 (two) years from the date the Consultant is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any Prohibited Practices.

3.2.7 For the purposes of Clauses 3.2.5 and 3.2.6, the following terms shall have the meaning hereinafter respectively assigned to them:

(a) "**corrupt practice**" means the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence the actions of any person connected with the Selection Process (for removal of doubt, offering of employment or employing or engaging in any manner whatsoever, directly or indirectly, any official of the Authority who is or has been associated in any manner, directly or

indirectly with Selection Process or LOA or dealing with matters concerning the Agreement before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Authority, shall be deemed to constitute influencing the actions of a person connected with the Selection Process); or (ii) engaging in any manner whatsoever, whether during the Selection Process or after the issue of LOA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Agreement, who at any time has been or is a legal, financial or technical adviser the Authority in relation to any matter concerning the Project;

(b) "**fraudulent practice**" means a misrepresentation or omission of facts or suppression of facts or disclosure of incomplete facts, in order to influence the Selection Process;

(c) "**coercive practice**" means impairing or harming, or threatening to impair or harm, directly or indirectly, any person or property to influence any person's participation or action in the Selection Process or the exercise of its rights or performance of its obligations by the Authority under this Agreement;

(d) "**undesirable practice**" means (i) establishing contact with any person connected with or employed or engaged by the Authority with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or (ii) having a Conflict of Interest; and

(e) "**restrictive practice**" means forming a cartel or arriving at any understanding or arrangement among Applicants with the objective of restricting or manipulating a full and fair competition in the Selection Process.

3.3 Confidentiality

The Consultant, its Sub-Consultants and the Personnel of either of them shall not, either during the term or within two years after the expiration or termination of this Agreement disclose any proprietary information, including information relating to reports, data, drawings, design software or other material, whether written or oral, in electronic or magnetic format, and the contents thereof; and any reports, digests or summaries created or derived from any of the foregoing that is provided by the Authority to the Consultant, its Sub-Consultants and the Personnel; any information provided by or relating to the Authority, its technology, technical processes, business affairs or finances or any information relating to the Authority's employees, officers or other professionals or suppliers, customers, or contractors of the Authority; and any other information which the Consultant is under an obligation to keep confidential in relation to the Project, the Services or this Agreement ("**Confidential Information**"), without the prior written consent of the Authority.

Notwithstanding the aforesaid, the Consultant, its Sub-Consultants and the Personnel of either of them may disclose Confidential Information to the extent that such Confidential

Information:

(i) was in the public domain prior to its delivery to the Consultant, its Sub-Consultants and the Personnel of either of them or becomes a part of the public knowledge from a source other than the Consultant, its Sub-Consultants and the Personnel of either of them;

(ii) was obtained from a third party with no known duty to maintain its confidentiality;

(iii) is required to be disclosed by Applicable Laws or judicial or administrative or arbitral process or by any governmental instrumentalities, provided that for any such disclosure, the Consultant, its Sub-Consultants and the Personnel of either of them shall give the Authority, prompt written notice, and use reasonable efforts to ensure that such disclosure is accorded confidential treatment; and

(iv) is provided to the professional advisers, agents, auditors or representatives of the Consultant or its Sub-Consultants or Personnel of either of them, as is reasonable under the circumstances; provided, however, that the Consultant or its Sub-Consultants or Personnel of either of them, as the case may be, shall require their professional advisers, agents, auditors or its representatives, to undertake in writing to keep such Confidential Information, confidential and shall use its best efforts to ensure compliance with such undertaking.

3.4 Liability of the Consultant

3.4.1 The Consultant's liability under this Agreement shall be determined by the Applicable Laws and the provisions hereof.

3.4.2 The Consultant shall, subject to the limitation specified in Clause 3.4.3, be liable to the Authority for any direct loss or damage accrued or likely to accrue due to deficiency in Services rendered by it.

3.4.3 The Parties hereto agree that in case of negligence or wilful misconduct on the part of the Consultant or on the part of any person or firm acting on behalf of the Consultant in carrying out the Services, the Consultant, with respect to damage caused to the Authority's property, shall not be liable to the Authority:

(i) for any indirect or consequential loss or damage; and

(ii) for any direct loss or damage that exceeds (a) the Agreement Value set forth in Clause 6.1.2 of this Agreement, or (b) the proceeds the Consultant may be entitled to receive from any insurance maintained by the Consultant to cover such a liability in accordance with Clause 3.5.2, whichever of (a) or (b) is higher.

3.4.4 This limitation of liability specified in Clause 3.4.3 shall not affect the Consultant's liability, if any, for damage to Third Parties caused by the Consultant or any person or firm acting on behalf of the Consultant in carrying out the Services subject, however, to a

limit equal to 3 (three) times the Agreement Value.

3.5 Insurance to be taken out by the Consultant

3.5.1 (a) The Consultant shall, for the duration of this Agreement, take out and maintain, and shall cause any Sub-Consultant to take out and maintain, at its (or the Sub-Consultant's, as the case may be) own cost, but on terms and conditions approved by the Authority, insurance against the risks, and for the coverages, as specified in the Agreement and in accordance with good industry practice.

(b) Within 15 (fifteen) days of receiving any insurance policy certificate in respect of insurances required to be obtained and maintained under this clause, the Consultant shall furnish to the Authority, copies of such policy certificates, copies of the insurance policies and evidence that the insurance premia have been paid in respect of such insurance. No insurance shall be cancelled, modified or allowed to expire or lapse during the term of this Agreement.

(c) If the Consultant fails to effect and keep in force the aforesaid insurances for which it is responsible pursuant hereto, the Authority shall, apart from having other recourse available under this Agreement, have the option, without prejudice to the obligations of the Consultant, to take out the aforesaid insurance, to keep in force any such insurances, and pay such premia and recover the costs thereof from the Consultant, and the Consultant shall be liable to pay such amounts on demand by the Authority.

(d) Except in case of Third Party liabilities, the insurance policies so procured shall mention the Authority as the beneficiary of the Consultant and the Consultant shall procure an undertaking from the insurance company to this effect; provided that in the event the Consultant has a general insurance policy that covers the risks specified in this Agreement and the amount of insurance cover is equivalent to 3 (three) times the cover required hereunder, such insurance policy may not mention the Authority as the sole beneficiary of the Consultant or require an undertaking to that effect.

3.5.2 The Parties agree that the risks and coverages shall include but not be limited to the following:

(a) Third Party liability insurance as required under Applicable Laws, with a minimum coverage of Rs. 20 (twenty) crore;

(b) employer's liability and workers' compensation insurance in respect of the Personnel of the Consultant and of any Sub-Consultant, in accordance with Applicable Laws; and

(c) professional liability insurance for an amount no less than the Agreement Value.

The indemnity limit in terms of "Any One Accident" (AOA) and "Aggregate limit on the

policy period" (AOP) should not be less than the amount stated in Clause 6.1.2 of the Agreement. In case of consortium, the policy should be in the name of Lead Member and not in the name of individual Members of the consortium.

3.6 Accounting, inspection and auditing

The Consultant shall:

(a) keep accurate and systematic accounts and records in respect of the Services provided under this Agreement, in accordance with internationally accepted accounting principles and in such form and detail as will clearly identify all relevant time charges and cost, and the basis thereof (including the basis of the Consultant's costs and charges); and

(b) permit the Authority or its designated representative periodically, and up to one year from the expiration or termination of this Agreement, to inspect the same and make copies thereof as well as to have them audited by auditors appointed by the Authority.

3.7 Consultant's actions requiring the Authority's prior approval

The Consultant shall obtain the Authority's prior approval in writing before taking any of the following actions:

(a) appointing such members of the Professional Personnel as are not listed in Annex–2.

(b) entering into a subcontract for the performance of any part of the Services, it being understood (i) that the selection of the Sub-Consultant and the terms and conditions of the subcontract shall have been approved in writing by the Authority prior to the execution of the subcontract, and (ii) that the Consultant shall remain fully liable for the performance of the Services by the Sub-Consultant and its Personnel pursuant to this Agreement; or

(c) any other action that is specified in this Agreement.

3.8 Reporting obligations

The Consultant shall submit to the Authority the reports and documents specified in the Agreement, in the form, in the numbers and within the time periods set forth therein.

3.9 Documents prepared by the Consultant to be property of the Authority

3.9.1 All plans, drawings, specifications, designs, reports and other documents (collectively referred to as "**Consultancy Documents**") prepared by the Consultant (or by the Sub-Consultants or any Third Party) in performing the Services shall become and remain the property of the Authority, and all intellectual property rights in such Consultancy Documents shall vest with the Authority. Any Consultancy Document, of which the

ownership or the intellectual property rights do not vest with the Authority under law, shall automatically stand assigned to the Authority as and when such Consultancy Document is created and the Consultant agrees to execute all papers and to perform such other acts as the Authority may deem necessary to secure its rights herein assigned by the Consultant.

3.9.2 The Consultant shall, not later than termination or expiration of this Agreement, deliver all Consultancy Documents to the Authority, together with a detailed inventory thereof. The Consultant may retain a copy of such Consultancy Documents. The Consultant, its Sub-Consultants or a Third Party shall not use these Consultancy Documents for purposes unrelated to this Agreement without the prior written approval of the Authority.

3.9.3 The Consultant shall hold the Authority harmless and indemnified for any losses, claims, damages, expenses (including all legal expenses), awards, penalties or injuries (collectively referred to as 'claims') which may arise from or due to any unauthorised use of such Consultancy Documents, or due to any breach or failure on part of the Consultant or its Sub-Consultants or a Third Party to perform any of its duties or obligations in relation to securing the aforementioned rights of the Authority.

3.10 Equipment and materials furnished by the Authority

Equipment and materials made available to the Consultant by the Authority shall be the property of the Authority and shall be marked accordingly. Upon termination or expiration of this Agreement, the Consultant shall furnish forthwith to the Authority, an inventory of such equipment and materials and shall dispose of such equipment and materials in accordance with the instructions of the Authority. While in possession of such equipment and materials, the Consultant shall, unless otherwise instructed by the Authority in writing, insure them in an amount equal to their full replacement value.

3.11 Providing access to Project Office and Personnel

The Consultant shall ensure that the Authority, and officials of the Authority having authority from the Authority, are provided unrestricted access to the Project Office and to all Personnel during office hours. The Authority's official, who has been authorised by the Authority in this behalf, shall have the right to inspect the Services in progress, interact with Personnel of the Consultant and verify the records relating to the Services for his satisfaction.

3.12. Accuracy of Documents

The Consultant shall be responsible for accuracy of the data collected by it directly or procured from other agencies/authorities, the designs, drawings, estimates and all other details prepared by it as part of these services. Subject to the provisions of Clause 3.4, it shall indemnify the Authority against any inaccuracy in its work which might surface during implementation of the Project, if such inaccuracy is the result of any negligence or inadequate due diligence on part of the Consultant or arises out of its failure to conform to good industry practice. The Consultant shall also be responsible for promptly

correcting, at its own cost and risk, the drawings including any re-survey / investigations.

4. CONSULTANT'S PERSONNEL AND SUB-CONSULTANTS

4.1 General

The Consultant shall employ and provide such qualified and experienced Personnel as may be required to carry out the Services.

4.2 Deployment of Personnel

4.2.1 The designations, names and the estimated periods of engagement in carrying out the Services by each of the Consultant's Personnel are described in Annex-2 of this Agreement. The estimate of Personnel costs and manday rates are specified in Annex-3 of this Agreement.

4.2.2 Adjustments with respect to the estimated periods of engagement of Personnel set forth in the aforementioned Annex-3 may be made by the Consultant by written notice to the Authority, provided that: (i) such adjustments shall not alter the originally estimated period of engagement of any individual by more than 20% (twenty per cent) or one week, whichever is greater, and (ii) the aggregate of such adjustments shall not cause payments under the Agreement to exceed the Agreement Value set forth in Clause 6.1.2 of this Agreement. Any other adjustments shall only be made with the written approval of the Authority.

4.2.3 If additional work is required beyond the scope of the Services specified in the Terms of Reference, the estimated periods of engagement of Personnel, set forth in the Annexes of the Agreement may be increased by agreement in writing between the Authority and the Consultant, provided that any such increase shall not, except as otherwise agreed, cause payments under this Agreement to exceed the Agreement Value set forth in Clause 6.1.2.

4.3 Approval of Personnel

4.3.1 The Professional Personnel listed in Annex-2 of the Agreement are hereby approved by the Authority. No other Professional Personnel shall be engaged without prior approval of the Authority.

4.3.2 If the Consultant hereafter proposes to engage any person as Professional Personnel, it shall submit to the Authority its proposal along with a CV of such person in the form provided at Appendix–I (Form-12) of the RFP. The Authority may approve or reject such proposal within 14 (fourteen) days of receipt thereof. In case the proposal is rejected, the Consultant may propose an alternative person for the Authority's consideration. In the event the Authority does not reject a proposal within 14 (fourteen) days of the date of receipt thereof under this Clause 4.3, it shall be deemed to have been approved by the Authority.

4.4 Substitution of Key Personnel

The Authority expects all the Key Personnel specified in the Proposal to be available during implementation of the Agreement. The Authority will not consider any substitution of Key Personnel except under compelling circumstances beyond the control of the Consultant and the concerned Key Personnel. Such substitution shall be limited to not more than two Key Personnel subject to equally or better qualified and experienced personnel being provided to the satisfaction of the Authority. Without prejudice to the foregoing, substitution of one Key Personnel shall be permitted subject to reduction of remuneration equal to 20% (twenty per cent) of the total remuneration specified for the Key Personnel who is proposed to be substituted. In case of a second substitution, such reduction shall be equal to 50% (fifty per cent) of the total remuneration specified for the Key Personnel who is proposed to be substituted.

4.5 Working hours, overtime, leave, etc.

The Personnel shall not be entitled to be paid for overtime nor to take paid sick leave or vacation leave except as specified in the Agreement, and the Consultant's remuneration shall be deemed to cover these items. All leave to be allowed to the Personnel is excluded from the mandays of service set forth in Annex-2. Any taking of leave by any Personnel for a period exceeding 7 (seven) days shall be subject to the prior approval of the Authority, and the Consultant shall ensure that any absence on leave will not delay the progress and quality of the Services.

4.6 Resident Team Leader and Project Manager

The person designated as the Team Leader of the Consultant's Personnel shall be responsible for the coordinated, timely and efficient functioning of the Personnel. In addition, the Consultant shall designate a suitable person as Project Manager (the "**Project Manager**") who shall be responsible for day to day performance of the Services.

4.7 Sub-Consultants

Sub-Consultants listed in Annex-4 of this Agreement are hereby approved by the Authority. The Consultant may, with prior written approval of the Authority, engage additional Sub-Consultants or substitute an existing Sub-Consultant. The hiring of Personnel by the Sub-Consultants shall be subject to the same conditions as applicable to Personnel of the Consultant under this Clause 4.

5. OBLIGATIONS OF THE AUTHORITY

5.1 Assistance in clearances etc.

Unless otherwise specified in the Agreement, the Authority shall make best efforts to ensure that the Government shall:

(a) provide the Consultant, its Sub-Consultants and Personnel with work permits and such other documents as may be necessary to enable the Consultant, its Sub-Consultants or Personnel to perform the Services;

(b) facilitate prompt clearance through customs of any property required for the Services; and

(c) issue to officials, agents and representatives of the Government all such instructions as may be necessary or appropriate for the prompt and effective implementation of the Services.

5.2 Access to land and property

The Authority warrants that the Consultant shall have, free of charge, unimpeded access to the site of the project in respect of which access is required for the performance of Services; provided that if such access shall not be made available to the Consultant as and when so required, the Parties shall agree on (i) the time extension, as may be appropriate, for the performance of Services, and (ii) the additional payments, if any, to be made to the Consultant as a result thereof pursuant to Clause 6.1.3.

5.3 Change in Applicable Law

If, after the date of this Agreement, there is any change in the Applicable Laws with respect to taxes and duties which increases or decreases the cost or reimbursable expenses incurred by the Consultant in performing the Services, by an amount exceeding 2% (two per cent) of the Agreement Value specified in Clause 6.1.2, then the remuneration and reimbursable expenses otherwise payable to the Consultant under this Agreement shall be increased or decreased accordingly by agreement between the Parties hereto, and corresponding adjustments shall be made to the aforesaid Agreement Value.

5.4 Payment

In consideration of the Services performed by the Consultant under this Agreement, the Authority shall make to the Consultant such payments and in such manner as is provided in Clause 6 of this Agreement.

6. PAYMENT TO THE CONSULTANT

6.1 Cost estimates and Agreement Value

6.1.1 An abstract of the cost of the Services payable to the Consultant is set forth in Annex-5 of the Agreement**.**

6.1.2 Except as may be otherwise agreed under Clause 2.6 and subject to Clause 6.1.3, the payments under this Agreement shall not exceed the agreement value specified herein (the "**Agreement Value**"). The Parties agree that the Agreement Value is Rs. ……. (Rupees. …….), which does not include the Additional Costs specified in Annex-5 (the "**Additional Costs**").

6.1.3 Notwithstanding anything to the contrary contained in Clause 6.1.2, if pursuant to the provisions of Clauses 2.6 and 2.7, the Parties agree that additional payments shall be made to the Consultant in order to cover any additional expenditures not envisaged in the cost estimates referred to in Clause 6.1.1 above, the Agreement Value set forth in Clause 6.1.2 above shall be increased by the amount or amounts, as the case may be, of any such additional payments.

6.2 Currency of payment

All payments shall be made in Indian Rupees. The Consultant shall be free to convert Rupees into any foreign currency as per Applicable Laws.

6.3 Mode of billing and payment

Billing and payments in respect of the Services shall be made as follows:-

(a) A Mobilisation Advance for an amount upto 10% (ten per cent) of the Agreement Value shall be paid to the Consultant on request and against a Bank Guarantee from a Scheduled Bank in India in an amount equal to such advance, such Bank Guarantee to remain effective until the advance payment has been fully set off as provided herein. The advance outstanding shall attract simple interest @ 10% (ten per cent) per annum and shall be adjusted in four equal instalments from the first four stage payments due and payable to the Consultant, and the accrued interest shall be recovered from the fifth instalment due and payable thereafter.

(b) The Consultant shall be paid for its services as per the Payment Schedule at Annex-6 of this Agreement, subject to the Consultant fulfilling the following conditions:

(i) No payment shall be due for the next stage till the Consultant completes, to the satisfaction of the Authority, the work pertaining to the preceding stage.

(ii) The Authority shall pay to the Consultant, only the undisputed amount.

(c) The Authority shall cause the payment due to the Consultant to be made within 30 (thirty) days after the receipt by the Authority of duly completed bills with necessary particulars (the "**Due Date**"). Interest at the rate of 10% (ten per cent) per annum shall become payable as from the Due Date on any amount due by, but not paid on or before, such Due Date.

(d) The final payment under this Clause shall be made only after the final report and a final statement, identified as such, shall have been submitted by the Consultant and approved as satisfactory by the Authority. The Services shall be deemed completed and finally accepted by the Authority and the final deliverable shall be deemed approved by the Authority as satisfactory upon expiry of 90 (ninety) days after receipt of the final deliverable by the Authority unless the Authority, within such 90 (ninety) day period, gives written notice to the Consultant specifying in

detail, the deficiencies in the Services. The Consultant shall thereupon promptly make any necessary corrections and/or additions, and upon completion of such corrections or additions, the foregoing process shall be repeated. The Authority shall make the final payment upon acceptance or deemed acceptance of the final deliverable by the Authority.

(e) Any amount which the Authority has paid or caused to be paid in excess of the amounts actually payable in accordance with the provisions of this Agreement shall be reimbursed by the Consultant to the Authority within 30 (thirty) days after receipt by the Consultant of notice thereof. Any such claim by the Authority for reimbursement must be made within 1 (one) year after receipt by the Authority of a final report in accordance with Clause 6.3 (d). Any delay by the Consultant in reimbursement by the due date shall attract simple interest @ 10% (ten per cent) per annum.

(f) 10% (ten per cent) of the Agreement Value has been earmarked as Final Payment to be made to the Consultant upon execution of the Concession Agreement. In the event the Concession Agreement does not get executed within 1 (one) year of the Effective Date the Final Payment shall not become due to the Consultant, save and except the costs incurred for meeting its reimbursable expenses during the period after expiry of 18 (eighteen) weeks from the Effective Date, including travel costs and personnel costs, at the agreed rates.

(g) All payments under this Agreement shall be made to the account of the Consultant as may be notified to the Authority by the Consultant.

7. LIQUIDATED DAMAGES AND PENALTIES

7.1 Performance Security

7.1.1 The Authority shall retain by way of performance security (the "**Performance Security**"), 5% (five per cent) of all the amounts due and payable to the Consultant, to be appropriated against breach of this Agreement or for recovery of liquidated damages as specified in Clause 7.2 herein. The balance remaining out of the Performance Security shall be returned to the Consultant at the end of 3 (three) months after the expiration of this Agreement pursuant to Clause 2.4 hereof.

7.1.2 The Consultantmay, in lieu of retention of the amounts as referred to in Clause 7.1.1 above, furnish a Bank Guarantee substantially in the form specified at Annex-7 of this Agreement.

7.2 Liquidated Damages

7.2.1 Liquidated Damages for error/variation

In case any error or variation is detected in the reports submitted by the Consultant and such error or variation is the result of negligence or lack of due diligence on the part of the Consultant, the consequential damages thereof shall be quantified by the Authority in

a reasonable manner and recovered from the Consultant by way of deemed liquidated damages, subject to a maximum of 50% (fifty per cent) of the Agreement Value.

7.2.2 Liquidated Damages for delay

In case of delay in completion of Services, liquidated damages not exceeding an amount equal to 0.2% (zero point two per cent) of the Agreement Value per day, subject to a maximum of 10% (ten per cent) of the Agreement Value will be imposed and shall be recovered by appropriation from the Performance Security or otherwise. However, in case of delay due to reasons beyond the control of the Consultant, suitable extension of time shall be granted.

7.2.3 Encashment and appropriation of Performance Security

The Authority shall have the right to invoke and appropriate the proceeds of the Performance Security, in whole or in part, without notice to the Consultant in the event of breach of this Agreement or for recovery of liquidated damages specified in this Clause 7.2.

7.3 Penalty for deficiency in Services

In addition to the liquidated damages not amounting to penalty, as specified in Clause 7.2, warning may be issued to the Consultant for minor deficiencies on its part. In the case of significant deficiencies in Services causing adverse effect on the Project or on the reputation of the Authority, other penal action including debarring for a specified period may also be initiated as per policy of the Authority.

8. FAIRNESS AND GOOD FAITH

8.1 Good Faith

The Parties undertake to act in good faith with respect to each other's rights under this Agreement and to adopt all reasonable measures to ensure the realisation of the objectives of this Agreement.

8.2 Operation of the Agreement

The Parties recognise that it is impractical in this Agreement to provide for every contingency which may arise during the life of the Agreement, and the Parties hereby agree that it is their intention that this Agreement shall operate fairly as between them, and without detriment to the interest of either of them, and that, if during the term of this Agreement either Party believes that this Agreement is operating unfairly, the Parties will use their best efforts to agree on such action as may be necessary to remove the cause or causes of such unfairness, but failure to agree on any action pursuant to this Clause shall not give rise to a dispute subject to arbitration in accordance with Clause 9 hereof.

9. SETTLEMENT OF DISPUTES

9.1 Amicable settlement

The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Agreement or the interpretation thereof.

9.2 Dispute resolution

9.2.1 Any dispute, difference or controversy of whatever nature howsoever arising under or out of or in relation to this Agreement (including its interpretation) between the Parties, and so notified in writing by either Party to the other Party (the "**Dispute**") shall, in the first instance, be attempted to be resolved amicably in accordance with the conciliation procedure set forth in Clause 9.3.

9.2.2 The Parties agree to use their best efforts for resolving all Disputes arising under or in respect of this Agreement promptly, equitably and in good faith, and further agree to provide each other with reasonable access during normal business hours to all non-privileged records, information and data pertaining to any Dispute.

Section 7.05 9.3 Conciliation

In the event of any Dispute between the Parties, either Party may call upon Commissionaire BBMP, and the Chairman of the Board of Directors of the Consultant or an authorized person for amicable settlement, and upon such reference, the said persons shall meet no later than 10 (ten) days from the date of reference to discuss and attempt to amicably resolve the Dispute. If such meeting does not take place within the 10 (ten) day period or the Dispute is not amicably settled within 15 (fifteen) days of the meeting or the Dispute is not resolved as evidenced by the signing of written terms of settlement within 30 (thirty) days of the notice in writing referred to in Clause 9.2.1 or such longer period as may be mutually agreed by the Parties, either Party may refer the Dispute to arbitration in accordance with the provisions of Clause 9.4.

Section 7.06 9.4 Arbitration

9.4.1 Any Dispute which is not resolved amicably by conciliation, as provided in Clause 9.3, shall be finally decided by reference to arbitration by an Arbitral Tribunal appointed in accordance with Clause 9.4.2. Such arbitration shall be held in accordance with the Rules of Arbitration of the International Centre for Alternative Dispute Resolution, Bangaluru (the "**Rules**"), or such other rules as may be mutually agreed by the Parties, and shall be subject to the provisions of the Arbitration and Conciliation Act,1996. The venue of such arbitration shall be Bangaluru and the language of arbitration proceedings shall be English.

9.4.2 There shall be {an Arbitral Tribunal of three arbitrators, of whom each Party shall select one, and the third arbitrator shall be appointed by the two arbitrators so selected, and in the event of disagreement between the two arbitrators, the appointment} {a sole

arbitrator[$] whose appointment} shall be made in accordance with the Rules.

9.4.3 The arbitrators shall make a reasoned award (the "**Award**"). Any Award made in any arbitration held pursuant to this Clause 9 shall be final and binding on the Parties as from the date it is made, and the Consultant and the Authority agree and undertake to carry out such Award without delay.

9.4.4 The Consultant and the Authority agree that an Award may be enforced against the Consultant and/or the Authority, as the case may be, and their respective assets wherever situated.

9.4.5 This Agreement and the rights and obligations of the Parties shall remain in full force and effect, pending the Award in any arbitration proceedings hereunder.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be signed in their respective names as of the day and year first above written.

SIGNED, SEALED AND DELIVERED	SIGNED, SEALED AND DELIVERED
For and on behalf of Consultant:	For and on behalf of [Authority]
(Signature)	(Signature)
(Name)	(Name)
(Designation)	(Designation)
(Address)	(Address)
(Fax No.)	(Fax No.)

In the presence of:

[$] In case the Agreement Value specified in Clause 6.1.2 of this Agreement does not exceed Rs. 1 (one) crore, a sole arbitrator shall be appointed. In case the Agreement Value specified in Clause 6.1.2 of this Agreement is more than Rs. 1 (one) crore, a Board shall be appointed. Depending upon the Agreement Value, one of the two curly parentheses shall be deleted from Clause 9.4.2.